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**UPPER GUADALUPE RIVER
PROJECT MANAGEMENT PLAN**

**Prepared by the
San Francisco District Corps of Engineers**

**and
The Santa Clara Valley Water District**

April 1998

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EXECUTIVE SUMMARY

The Project Management Plan (PMP) is developed to serve as a management tool to guide the efficient implementation of the Upper Guadalupe River Flood Control Project. This flood control project would utilize bypass channels to increase the minimum main stem capacity downstream of Canoas Creek to 14,600 cfs. Additional improvements on the main stem would include the replacement of five bridges and a combination of low floodwalls and bank widening. The downstream reach of Ross Creek would be channelized, and new culverts and floodwalls would be placed along Canoas Creek to address backwater effects from the mainstem Guadalupe. A recreational bike trail would be incorporated on access roads and other flood control structures of this plan.

The first project cost of the NED Plan (Valley View Plan) is \$83,520,000 at October 1997 price levels. The first project cost of the Recommended Plan (Bypass Channel Plan) is \$132,835,000 at October 1997 price levels. The benefit-to-cost ratio for the Recommended Plan is 2.1 to 1. This plan would remove over 6,600 structures from the 100-year floodplain. Mitigation would include the replacement of approximately 30 acres of riparian forest, urban forest, wetland, and shaded riverine habitat within the study area. The mitigation plan has been coordinated with the U.S. Fish and Wildlife Service during the course of this study.

This PMP has been developed in conjunction with the Feasibility Study and details the scope, schedule, cost, implementation, applicable regulations and endorsement of the Local Sponsor required to implement the flood protection project.

INTRODUCTION

This PMP provides an overall plan for the planning, design, and construction of a flood control project within the City of San Jose, California. This version of the PMP is not intended to be all inclusive nor is it intended to anticipate or include all possible changes to the project during execution. It is, however, a dynamic document that records all known design costs and schedules for the project, through completion and transfer to the Local Sponsor. It is prepared in accordance with ER 5-7-1(FR), 30 Sep 92.

PURPOSE. The objective of Project Management (PM) is to establish a system which focuses US Army Corps of Engineers' (USACE) corporate leadership on the efficient implementation of successfully completing quality projects within budget and on schedule. This includes goals such as improving USACE's performance in project implementation, while taking into account the concerns and expectations of the Local Sponsor, increased accountability for scope, quality, cost, budget and schedule, and improving project continuity. This Project Management Plan (PMP) has been developed to serve as a management tool in achieving these goals, thus achieving USACE's objective of a successfully operating quality project.

AUTHORITY. Section 4 of the Flood Control Act of 18 August 1941 authorized a preliminary examination of the Guadalupe River, its tributaries and adjacent streams. The authorization reads as follows:

"The Secretary of War is hereby authorized and directed to cause preliminary examinations and surveys for flood control, to be made under the direction of the Chief of Engineers, in drainage areas, the United States and its territorial possessions, which include the following named localities: Coyote River and tributaries, California; San Francisquito Creek, San Mateo and Santa Clara Counties, California; Matadero Creek, Santa Clara County, California; and Guadalupe River and tributaries."

Note that the authorization refers to Coyote Creek as "Coyote River".

On 6 June 1945, the Chief of Engineers endorsed the Preliminary Examination Report of Guadalupe River and Tributaries (dated 28 February 1945). This endorsement authorized a flood control investigation of Guadalupe River, Coyote Creek, San Francisquito Creek and numerous other creeks which continued to be studied under the 1941 Guadalupe River and Adjacent Streams authorization:

STUDY AREA LOCATION AND DESCRIPTION.

The local study area is situated in an urban area of southwestern San Jose, in the extreme southern area of the highly urbanized Santa Clara Valley. Santa Clara Valley lies in the center of Santa Clara County in west central California, immediately south of San Francisco Bay. The county is bounded on the northeast by Alameda County, on the northwest by San Mateo County and the southwest by Santa Cruz County.

The Guadalupe River watershed is bounded on the south and southwest by the east side of the Santa Cruz Mountains, on the west by the San Tomas and Saratoga Creeks basin, on the north by the San Francisco Bay, and on the east by the Coyote Creek basin. The Guadalupe River is the second largest stream in Santa Clara County discharging into the southern San Francisco Bay, draining an area of approximately 170 square miles. The river corridor passes through a region of the valley that is predominantly residential and commercial. The river flows from south to north for approximately 20 miles before emptying into San Francisco Bay. Its upstream terminus is located one-quarter mile south of Blossom Hill Road, at the confluence of Guadalupe Creek and Alamos Creek. The upstream 5-1/2 miles of the river comprise the study area which is bounded by the Union Pacific (formerly the Southern Pacific) Railroad bridge crossing near Willow Street and the Blossom Hill Road Bridge. The study reach has two tributaries, Ross Creek and Canoas Creek. The Guadalupe, Almaden and Calero Reservoirs are located upstream of Blossom Hill Road.

For descriptive purposes, the study area has been divided into "river reaches" and "economic areas" corresponding to the major bridge crossings and floodplain areas, respectively. River reaches are defined in Table 1.

Table 1: Upper Guadalupe Study River Reaches

River Reach Number	Approx. Station	From	To
7	740 - 781	upstream Union Pacific Railroad (UPRR) river crossing	downstream UPRR river crossing
8	781 - 797	downstream UPRR river crossing	Willow Glen Way
9	797 - 843	Willow Glen Way	Curtner Avenue
10	843 - 909	Curtner Avenue	Capitol Expressway
11	909 - 940	Capitol Expressway	Branham Lane
12	940 - 1016	Branham Lane	Blossom Hill Road

BACKGROUND.

The reconnaissance phase of this study was initiated in 1987 in response to a request from the non-Federal sponsor, the Santa Clara Valley Water District (SCVWD). Upon completion of the reconnaissance phase, the feasibility phase was initiated in 1989. The Santa Clara Valley Water District has provided continuous financial and technical support while serving as an active member of the study team. Because Federal funding was not guaranteed, the SCVWD moved forward with their own studies and design of a project. Thus, two studies were conducted for the same purpose - the Federal study (Corps/SCVWD), and the local study (SCVWD).

The Corps included a modified version of the SCVWD design as one of several alternatives which were investigated. This plan, the Bypass Channel Plan, differs from the SCVWD plan in that it does not include any features between Highway 280 and the Union Pacific Railroad (UPRR), formerly known as the Southern Pacific Railroad (SPRR), near Willow Street. Nor does it include any features south of Blossom Hill Road. These areas were excluded from the Federal studies because they were unlikely to be economically justified.

The Recommended Plan, the Bypass Channel Plan, has a benefit-to-cost ratio of 2.1 to 1, and a first project cost of \$132,835,000 at October 1997 price levels. The Federal and non-Federal first project cost shares are estimated to be \$54,288,000 and \$78,547,000, respectively, based on October 1997 Price Levels. The non-Federal sponsor is responsible for an additional payment of \$2,685,000 for betterments associated with the project. Over the long term, the Bypass Channel Plan was found to be the least environmentally damaging of all the alternatives studied.

The National Economic Development (NED) plan is not the same plan as the Recommended Plan. The first project cost of the NED Plan (Valley View Plan) is \$83,520,000 at October 1997 price levels. The Federal investment is limited to that which applies to the NED plan.

STATUS.

A final public hearing was held on October 9, 1997. The Feasibility Study was completed February 25, 1998 with the issuance of the Division Engineer's Public Notice. Pre-construction Engineering and Design will be initiated by the San Francisco District Corps of Engineers shortly following the completion of the Feasibility Study and execution of the PED cost-sharing agreement with the SCVWD.

PLAN ELEMENTS

SCOPE OF WORK

Purpose

The purpose of this scope of work is to detail the work required to complete the Preconstruction Engineering and Design (PED) phase of work for the Bypass Channel Plan. The Bypass Channel Plan has been identified as the Recommended Plan and as the Locally Preferred Plan (LPP). Because the Federal investment will be limited to that for the NED Plan, both the LPP and the NED Plan will be fully developed during PED.

The Feasibility Study was completed February 25, 1998, with the issuance of the Division Engineer's Public Notice. In view of seamless funding, the Pre-construction, Engineering and Design (PED) phase will begin after the Division Engineer issues the public notice for the feasibility report and after PED funds are allocated to the San Francisco District Corps of Engineers. Design costs are shared in the same percentage as the purpose of the project. These costs are cost-shared during the PED phase. PED ends with the approval of the Plans and Specifications (P&S) for the first contract by South Pacific Division, Corps of Engineers. The construction and operation and maintenance phases will follow the PED phase. Operation and maintenance of the project will be the responsibility of the SCVWD.

LPP

The Bypass Channel Plan includes channel widening, bypasses and floodwalls. This recommended plan would provide protection against an approximate 100-year fluvial flood event under Corps hydrologic and hydraulic criteria, which is equivalent to the FEMA (present hydrology) 100-year level. All bypass channels are located to the east of the Guadalupe River, adjacent to the existing channel. The largest bypass channel is located in Reaches 7 and 8 between Willow Street and Willow Glen Way. The portion of the bypass between Willow Street and Alma Street is located in the existing floodway. This alignment preserves the existing banks of the river and allows for the transfer of high flows between the existing channel and the bypass. Upstream of Alma Street in Reach 7, and downstream of Willow Glen Way, the bypass is offset from the existing channel. A low floodwall on the east side of the bypass is required for the channel upstream of Alma Street and downstream of the UPRR bridge. A total of 33 residential and 19 commercial structures will be impacted by the bypass channel alignment in Reaches 8 and 9. Reach 9 includes channel widening and a bypass channel. Reach 10 measures consist of east bank widening where necessary and replacement of the Curtner and Hillsdale Avenue bridges. Low floodwalls and a levee four feet high are also provided on the west bank from the Almaden Expressway southbound bridge to the Almaden Expressway northbound bridge. Finally, the measures in Reach 11 consist of channel widening and a bypass channel. The Bypass Channel Plan measures for each river reach are summarized in Table 2A.

Table 2A - Bypass Channel Alternative Summary of Measures (LPP)

River Reach	Approx Station	Description of Measures
7	740 740 - 773 750 770 - 773 773 773 - 781 773 - 781 781	Four 20 x 17-foot RCB culverts under upstream UPRR bridge Bypass channel with 1:1 slopes and a variable width 30-85 feet Construct bridge over bypass at Willow Street East bank floodwall Construct bridge over bypass at Alma Street Bypass channel with 1:1 slopes and a 60 foot wide bottom 2 - 4 foot high floodwall on the east bank Three 20 x 17-foot RCB culverts under the downstream UPRR bridge
8	781 - 795 795 795 795 - 797	Bypass channel with 1:1 slopes and a 85 foot wide bottom Bypass inlet weir 190 feet long Replace Willow Glen Way Bridge East bank widening
9	797 - 817 817 - 825 822 825 - 830 830 - 843	Bypass channel with variable slopes and width East bank widening Malone Road Bridge Modification Bypass channel 1:1 slopes and 40 foot bottom width East bank widening
10a	843 843 - 855	Replace Curtner Avenue Bridge east bank widening
10b	856 - 860 860 - 868 868 - 871	4 foot high floodwall on west bank 4 foot high levee on the west bank 4 foot high floodwall on west bank
10c	887-911 906	Widen east bank Replace Hillsdale Avenue Bridge
11a	909 - 915 915 - 922 922 - 940	East bank widening Bypass channel with 2:1 slopes and 50 foot bottom width East bank widening
11b	940 - 950	West bank widening
11c	950 - 960	West bank widening
12	960 - 969	Channel widening.
Canoas Creek	856	Improve Bridge and raise existing levees (mean 20-yr LOP*)
Ross Creek	950	35-ft wide trapezoidal channel from Guadalupe River to 750 ft upstream of Jarvis Ave. New culverts under Almaden Expwy & Jarvis Ave.

NED Plan

The NED Plan, or Valley View Plan, includes channel widening and floodwalls. This plan would provide protection against an approximate 50-year fluvial flood event under Corps hydrologic and hydraulic criteria.

Widening of the east bank of the river channel was chosen as the least cost measure in Reaches 7 and 8. The top width of the half trapezoidal shaped channel will vary from 80 to 125 feet wide with a side slope of 1V to 1.5H. The channel excavation will begin at a point three feet above the existing channel invert in order to preserve the existing channel bottom and provide for fish passage during low flows. A low floodwall will be needed on the east bank upstream of the West Alma Street Bridge adjacent to the Elks Lodge parking lot since the riverbank is particularly low and the channel is perched. Low floodwalls from 1 - 3 feet in height would be provided on the east and west banks of Reach 8. In Reach 10, the east bank would be widened near the Curtner Avenue Bridge. The Hillsdale bridge would be replaced. All of the channel widening in this reach and upstream would be contained between the top of banks of the existing channel. Farther upstream, in Reaches 10 and 11, the channel would be widened on the appropriate banks given the specific flow constraints at that location.

Improvements along Canoas Creek are limited to correspond to a mean 20-year storm event. In the absence of additional improvements along Canoas Creek, approximately 2,800 of nearly 4,900 structures within the 50-year floodplain would remain within the 50-year floodplain. The Valley View alternative was formulated by combining the least cost measures to increase the channel capacities at these flow constraints.

Improvements to Ross Creek would include increasing the bottom width of the channel to 27 feet; construction of a 600-foot long section of floodwall which would begin at Jarvis Avenue; and adding culverts at Almaden Expressway and Jarvis Avenue. Impacts to shaded riverine aquatic habitat and wetlands can be fully mitigated as a by-product of riparian forest habitat mitigation. Approximately 12.1 acres of riparian forest habitat must be replaced to achieve full habitat mitigation. The measures included in this alternative are summarized in Table 2B.

Table 2B - Valley View Alternative Summary of Measures (NED Plan)

River Reach	Approx. Station	Description of Measures
7	740 - 781 744 750 773 773 - 781 781	East bank widening Improvements to Hwy 87 Bridge Replace Willow Street Bridge Replace W. Alma Street Bridge 2 - 4 foot high floodwall on the east bank Improvements to SPRR Bridge
8	781-793 795	1 - 3 foot high floodwalls on the east and west banks (same as Willow Glen Plan) Replace the Willow Glen Way Bridge
9	None	None
10a	843 - 855	East Bank widening
10c	895 - 897.5 897.5 - 906 906 - 912 906	East Bank widening West Bank widening East and West Bank widening Replace Hillsdale Bridge
11	935 - 938 938 - 942 942 - 960	East Bank widening West Bank widening East Bank widening
Canoas Creek	856	Add culverts under Nightingale Drive and Almaden Expressway. Floodwalls both banks.
Ross Creek	950	27-ft wide trapezoidal channel from main channel to 750 feet upstream of Jarvis Ave. New culverts under Almaden Expwy and Jarvis Ave. 2,800 feet of floodwall (1 to 3-ft high) on both banks.

Note: Interior drainage features will be included in Reaches 7 and 8 and on Canoas and Ross Creeks to prevent locally induced flooding due to the floodwalls.

Specific Tasks

The specific tasks to be accomplished for this scope of work are described below. The required time schedule for completing these tasks is presented under "SCHEDULES". All activities associated with Task 1 are related to completing the Feasibility Study phase, and are not PED activities. However, these activities will be going on concurrently with the PED phase until the project is authorized for construction. \$50,000 in Feasibility Study funds, which is cost-shared 50-50, has been reserved for these efforts.

Task 1. Washington Level Review. The procedures for the submittal, assessment, and processing of the feasibility report to Congress are prescribed in Chapter 8, "WASHINGTON LEVEL REVIEW", ER 1105-2-100, 28 Dec 90 and are initiated with the issuance of the Division Commander's Public Notice and conclude with submission of the Chief of Engineers' report to the Assistant Secretary of the Army (Civil Works). The following paragraph summarizes these procedures:

Submittals:

Division Commander's Public Notice. The South Pacific Division Commander shall issue a public notice announcing completion of the feasibility study report. The notice shall provide for a 30-day period for comments on the report. Copies of the notice shall be forwarded to HQUSACE (CECW-P) and to the Deputy for Policy, Planning, and Legislative Affairs, ASA(CW).

Report Submittal. South Pacific Division Commander shall furnish submittals to HQUSACE and ASA(CW) to include: transmittal letter, feasibility report, Environmental Impact Statement/Report, technical supporting documentation and proposed Chief's report.

Slides. San Francisco District Commander shall provide two sets of 35mm slides for feasibility reports which recommend Federal action to HQUSACE (CECW-P) within 30 days after the Division Commander's Public Notice has been issued, and shall provide updated slides by 30 November each year to reflect the same economic data required for fact sheets.

Fact sheets. South Pacific Division commander shall submit a fact sheet for Congressional hearings on the feasibility report when the Division Commander's public notice is issued.

Assessment: The HQUSACE Policy Review Branch staff will be responsible for insuring a comprehensive review of the feasibility report and by coordinating reviews at the Washington level and providing information to assist the decision makers at HQUSACE and ASA(CW). Upon completion of its initial review, the Policy Review staff shall draft an assessment summarizing its findings on the report and indicating the additional information needed to address specific concerns. Upon receipt of the Policy Review draft assessment on the feasibility report HQUSACE and ASA(CW) shall have an opportunity to furnish additional comments, based on their review, for inclusion in a final Washington level

assessment. The final assessment will be a consolidation of the review comments of all Washington echelons and will identify the aspects needed to be addressed by the reporting officers before the feasibility report is considered by the decision makers. A field visit may be necessary for the HQUSACE staff to see the study area and to discuss the comments in the final assessment. At the end of the field visit, the HQUSACE staff shall have an exit briefing with the District Commander or his designated representative and shall also be available to brief the Division Commander on the results of the meeting if so desired. The HQUSACE staff shall prepare written documentation of the results of the report based on information obtained during the field visit and additional information furnished by the reporting officers after the field visit. The District will respond to the final assessment comments formally to HQUSACE thru Division.

Decision-Making Process: The decision-making process at the Washington level shall be initiated after completion of the review documentation. HQUSACE staff shall conduct a briefing for designated senior representatives of decision makers and invite representatives from ASA(CW), Division and District. The purpose of the briefing is to present results of the review and to permit an opportunity for participants to discuss aspects of the report with the HQUSACE staff. The sequence of decision making shall be HQUSACE and ASA(CW). After completion of the review documentation, each Washington echelon shall finalize its decision on the feasibility report within 30 days after the preceding echelon has forwarded its recommendation. The non-Federal sponsor shall be included throughout the decision-making process.

Task 2. Plans and Specifications (P&S): P&S will be prepared to contain all necessary information required to bid and construct the plan detailed in the Feasibility Report. P&S will be prepared by the Engineering Branch of the San Francisco District Corps of Engineers. Reviews will be made for biddability, constructability, and operability (ER 415-1-11) by Construction-Operations Division, San Francisco District. The submittal register (ENG Form 4288), which forms a part of the specifications package, will be prepared, and the contractor submittals to be reviewed by Engineering Division will be so indicated on the form. P&S will be reviewed by the South Pacific Division for quality assurance purposes. A construction bid estimate will be made following the completion of P&S. Following are general assumptions, including assumptions on bridge and utility relocations in the preparation of plans and specifications:

1. A Design Memorandum (DM) is required.
2. Approved Feasibility Report is basis for budgeting for new construction start.
3. All engineering and design necessary to identify project features and parameters are completed in PED.
4. The SCVWD will continue to acquire rights of way and to perform HTRW work during PED.
5. An EIS/EIR will accompany the Feasibility Report. Appropriate mitigation measures are included in the project design.
6. Project is expected to be constructed in at least three contracts (i.e. three sets of plans and specifications for the entire construction).
7. Sponsor will provide complete inventory of utilities.
8. Sponsor will relocate all impacted utilities prior to construction.
9. Use relocation cost estimate from Feasibility Report. The estimate will be updated during the construction phase after the plans and specs are completed.
10. Sponsor will be responsible for the completion of the design and construction of the Pearl Avenue bridge, which will replace the Hillsdale Avenue Bridge and Willow Glen Way bridge.
11. Sponsor will review the Plans and Specifications.

NOTE: A residual floodplain encompassing 880 structures will remain until the Sponsor implements a flood control project on Canoas Creek. The final design of the LPP and the NED plans will only address flooding in the lower reach of Canoas Creek resulting from backflow from the Guadalupe River.

The following paragraphs describe the tasks required for preparation of the plans and specifications:

PED SCOPE AND ESTIMATE FOR UPPER GUADALUPE

Basic Design Survey: This survey will be accomplished by the San Francisco Civil Design Section. The survey will be used to develop the horizontal and vertical alignment of the improved natural channel, bypass channels and the proposed floodwalls. Following are survey features:

1. Topographic survey to be developed from aerial photos
2. In areas of dense vegetation and under bridges, ground survey methods to be used.
3. In places covered by water, hydrographic surveys will be developed using ground survey methods.
4. All information collected will be electronically filed on diskettes using the Intergraph format.
5. Information concerning horizontal and vertical locations of existing or proposed utilities in the project area will be collected from local maps and descriptions supplemented by field investigations. All information collected will be verified by field check.
6. Topographic, hydrographic, orthophoto and utility data will be filed on separate layers.

Geotechnical Investigation: This includes a sub-surface exploration contract and laboratory testing of the material to determine the soil characteristics of the widened banks and foundations in our design of the floodwalls. There is a need to define material source characteristics for Canoas Creek and Ross Creek in areas which were not included in the original exploration contract. Borings will also be performed to better correlate the cone-penetrometer test (CPT) data base produced with the original exploration contract in the feasibility study. Results will be compiled in a report for the DM.

Hydraulic Design: This task will include only that hydraulic design effort necessary to complete final design or other features and for erosion/scour protection. Hydrology/Hydraulic design assumptions are as follow:

1. Verify existing hydraulic design.
2. Modify existing design to accommodate changes.
3. Local pier scour analysis around all bridges.
4. Evaluate existing erosion protection on project features.

5. Canoas Creek design from the confluences with Guadalupe River to Capitol Expressway.
6. Risk-based analysis for Canoas Creek.
7. Write report for DM.

Civil Design: A three-dimension design file and terrain model of the existing topography will be provided in Intergraph format. Overhead and underground utilities will be shown on the survey with invert elevation where applicable. Bridge abutments and piers should also be included on the survey. Civil design assumptions are as follow:

1. Consistent with Feasibility Report.
2. Major refinements necessary for slope stability for final design.
3. Texturize floodwalls and sheetpile wall concrete caps according to latest Corps of Engineers guidance on aesthetic treatments. Treatments must be acceptable to the local community. Any treatments which the Sponsor desires which are beyond the scope of Corps guidance will be the financial responsibility of the Sponsor.
4. Estimate assumes that major refinements may be required per sponsor's desire to modify Reach 12 (or other reaches) in order to coordinate with comprehensive watershed management plan.

Structural Design: Structural design includes verification or stability and seepage on final detailing for the Floodwalls, Concrete/Sheetpile Wall and load analysis on Bridges.

1. Complete design of levees and floodwalls including structural details.
2. Complete design of sheetpile walls and structural details.
3. Design and analysis for bridge pier protection.
4. Design concrete cap for sheetpile wall.
5. Assume three bridge designs can use standard CalTrans box culvert design, and a fourth bridge will require complete design.
6. Assume Pearl Avenue bridge to be designed by sponsor as in-kind service.

Economic Analysis: A two year update to the Economic Analysis in the Feasibility Report will be performed.

Cost Estimate: A Government Construction Cost Estimate will be prepared for the Bypass Channel Plan per ER 1110-2-1302, Appendix C (31 March 94). The estimate will be prepared in the Civil Works Breakdown Structure (CWBS) format to the detail level and will include comments describing the method of construction, assumptions, and the design data available. The cost estimate will be prepared using the Micro-Computer Aided Cost Engineering System (MCACES) and escalated to the proposed mid-point of construction.

Requirements to complete task: Design drawings and specs.

Project Specifications: A solicitation package will be developed which will include a bid schedule, all applicable FAR clauses, labor rates, and technical sections.

Requirements to complete task: Design drawings and bid schedule quantities.

Task 3. Project Cooperation Agreement (PCA). The PCA will be prepared for execution by the Assistant Secretary of the Army for Civil Works and the General Manager, Santa Clara Valley Water District (SCVWD). The Project Manager (PM) is responsible for the preparation of the PCA. The draft PCA is formally developed in conjunction with the SCVWD during PED. San Francisco District will update the project description and cost estimate prepared during the feasibility phase. More detailed information developed during PED regarding the critical design considerations affecting project performance and issues affecting items of local cooperation should be presented. The Engineering Division will review the PCA and assist the PM as needed during negotiations with the SCVWD. Final Feasibility Report will be used as supporting documentation for PCA.

Task 4. Real Estate Acquisition. The Santa Clara Valley Water District is required to provide all lands, easements, rights-of-way, relocations and dredged material disposal areas (LERRD's) required for construction, operation and maintenance of the project. The Sponsor will be directed to begin real property acquisition for the project only after the PCA is fully executed. The sponsor may consider it advantageous to start the process at an earlier date. However, the Sponsor should be aware that all actions taken before formal PCA execution are at its own risk. Prior to initiating acquisition, the sponsor shall conduct a public meeting (to be incorporated into regularly scheduled District Board meeting) to advise owners and tenants of project requirements and the acquisition process, and afford them an opportunity to comment. Corps representatives should attend to discuss Federal requirements. The Sacramento District Real Estate Division provides coordination between the Corps PM and the sponsor on all matters pertaining to the sponsor's real estate responsibilities and entitlement to credit. In no event will a construction contract be awarded unless the sponsor has provided the necessary real estate interests and assurances to support the work to be accomplished by that contract.

Task 5. Construction. The Contracting Division has the responsibility in preparing, issuance, and opening the invitations for bids and the award of contracts. The Construction-Operations Division is responsible for the various activities necessary in accomplishing the required construction contract administration. These activities include

contractor selection, management of construction expenditures, tracking of construction progress, coordination with local authorities during construction, construction quality assurance, safety and final acceptance of the constructed project. Engineering Division personnel will attend the pre-construction conference, review selected contractor submittals, visit the job site to verify designed project features, provide assistance for claims and modifications when requested, develop the O&M manual in conjunction with the local sponsor and prepare and maintain as-built drawings.

Task 6. Operations and Maintenance. The Local Sponsor, the Santa Clara Valley Water District, is responsible and must bear all costs of operation, maintenance, repair, replacement and rehabilitation (OMRRR) of all project features.

WORK BREAKDOWN STRUCTURE (WBS)

The Work Breakdown Structure (WBS) in list form for remaining tasks to be accomplished is as follows:

I. Level 1. The Project

Upper Guadalupe River Flood Control Project.

II. Level 2. Major Elements of the Project

1. Washington Level Review (Feasibility Study effort)
2. Design Memorandum (DM)
3. Plans and Specifications (P&S)
4. Project Cooperation Agreement (PCA)
5. Real Estate Acquisition
6. Construction
7. Operations & Maintenance (O&M)

III. Level 3. Elements Subordinate to Level 2 Major Elements

1. Washington Level Review (Feasibility Study effort)

- a. Division Commander's Public Notice
- b. Transmittal Letter
- c. Feasibility Report
- d. Environmental Impact Statement (EIS)
- e. Technical Supporting Documents
- f. Chief's Report
- g. Slides
- h. Fact Sheets

2. Plans and Specifications (P&S) (PED effort)

- a. Topographic survey
- b. Geotechnical investigation
- c. Hydraulic Design
- d. Civil Design
- e. Structural Design
- f. Economic Analysis
- g. Plans
- h. Specifications
- i. Government Estimate

3. Project Cooperation Agreement (PCA) (PED effort)

- a. Financial Plan

- b. PCA
- c. Certificate of Legal Authority

5. Real Estate Acquisition (Construction effort)

- a. Certificate of Sufficiency and Rights-Of-Entry
- b. Claims for real estate credit

6. Construction (Construction effort)

- a. Submittals
- b. Payment Estimates
- c. Safety Plan
- d. As-built drawings
- e. O&M manuals
- f. Modifications
- g. Claims

ORGANIZATION BREAKDOWN STRUCTURE (OBS)

San Francisco District Corps of Engineers

<u>RESOURCE NAME</u>	<u>RESOURCE CODE</u>
District Commander	CESPN-DE
Programs and Project Management Division	CESPN-PM
Project Management Branch	CESPN-PM-C
Programs Management Branch	CESPN-PM-P
Planning/Engineering Division	CESPN-PE
Engineering Branch	CESPN-PE-E
Planning Branch	CESPN-PE-P
Construction-Operations Division	CESPN-CO
Value Engineer Officer	CESPN-DE-V
Safety & Occupational Health Office	CESPN-SO
Office of Counsel	CESPN-OC
Contracting Division	CESPN-CT
Project Review Board (PRB)	CESPN-PRB

Sacramento District Corps of Engineers

<u>RESOURCE NAME</u>	<u>RESOURCE CODE</u>
Real Estate Division	CESPK-RE
Appraisal Branch	CESPK-RE-A
Acquisition Branch	CESPK-RE-C
Legal Section	CESPK-RE-C(WF)
Project Section	CESPK-RE-C(WU)
Planning & Control Branch	CESPK-RE-P

ORGANIZATION BREAKDOWN STRUCTURE (OBS)

Other Governmental Agencies

<u>RESOURCE NAME</u>	<u>RESOURCE CODE</u>
Santa Clara Valley Water District, Local Sponsor	SCVWD
Corps of Engineers, South Pacific Division	CESPD
Waterway Experiment Station	CEWES
Hydrologic Engineering Center	CEWRC-HEC
U.S. Fish and Wildlife Service	USFWS
U.S. Environmental Protection Agency	EPA
Assistant Secretary of the Army for Civil Works	ASA(CW)
Chief of Engineers (HQUSACE)	CECW
Office of Management and Budget	OMB
United States Congress	CONGRESS
President of the United States	PRES

RESPONSIBILITY ASSIGNMENT MATRIX

The responsibility assignment matrix (RAM) is a representation of the organizational responsibility for the performance of the Work Breakdown Structure elements of the project. It is the intersection of the Organizational Breakdown Structure and the Work Breakdown Structure. The WBS identifies the specific task or activity of work that is to be accomplished. The OBS identifies which organization has responsibility or input in completing that task. The responsibility assignments are shown in Appendix A .

SCHEDULE

The project schedule and critical path network for the upper Guadalupe River project are major elements of this PMP. Detailed schedules have been prepared using the Open Plan software program on a personal computer. The detailed schedules were developed by the PM under the direction of the Programs and Project Management Division and are consistent with the WBS.

The Feasibility Study was completed February 25, 1998 with the issuance of the Division Engineer's Public Notice. Pre-construction Engineering and Design will be performed by the San Francisco District Corps of Engineers. Approval of plans and specifications for the construction contract is scheduled in September 1998.

The Corps will officially request the Sponsor to acquire the necessary real estate (LERRD) with the signing of the PCA in March 2000. The final certification of real estate would follow a year later in March 2001. The advertisement of the construction contract will be administered by the San Francisco District and is scheduled in June 2001. Construction is scheduled to commence in September 2001 with a construction performance period of six years. Final acceptance and transfer to the Sponsor is scheduled at the end of June 2008, following the delivery of an O&M manual and as-built drawings to the Sponsor.

The following table provides significant milestones extracted from the project's critical path network schedule. See Appendix B for a detailed project construction schedule.

TABLE 3
PROJECT MILESTONE SCHEDULE

Upper Guadalupe River Flood Control Project

<u>NUMBER</u>	<u>MAJOR MILESTONE DESCRIPTION</u>	<u>BASELINE SCHEDULE</u>	<u>APPROVED SCHEDULE</u>	<u>CURRENT SCHEDULE</u>
060	FCSA SIGNED	COMPLETE	COMPLETE	10 APR 90
100	INIT FEASIBILITY STUDY	COMPLETE	COMPLETE	19 DEC 90

102	FEASIBILITY STUDY CONF #1 (F3)	COMPLETE	COMPLETE	10 SEP 92
103	FEASIBILITY STUDY CONF #2 (F4)	COMPLETE	COMPLETE	09 OCT 96
162	DRAFT FEASIBILITY RPT TO CESPD	COMPLETE	COMPLETE	03 SEP 97
102	FEASIBILITY REVIEW CONFERENCE	COMPLETE	COMPLETE	WAIVED
162	FINAL PUBLIC MEETING (F7)	COMPLETE	COMPLETE	09 OCT 97
163	FINAL FEAS. REPORT TO DIV (F8)	COMPLETE	COMPLETE	30 JAN 98
170	DIV. ENGINEERS PUB NOTICE (F9)	COMPLETE	COMPLETE	25 FEB 98
200	INITIATE PED		04 MAY 98	04 MAY 98
330	CHIEF OF ENGINEERS REPORT		30 JUN 98	30 JUN 98
340	ASA (CW) TRANS REPORT TO CONGRESS		30 JUL 98	30 JUL 98
350	PROJECT AUTHORIZED BY PRESIDENT		30 OCT 98	30 OCT 98
361	RECOMMEND INIT OF CONSTRUCTION		30 OCT 98	30 OCT 98
581	FINAL P&S TO DIVISION		31 AUG 99	31 AUG 99
590	APPROVAL P&S TO DIVISION		30 SEP 99	30 SEP 99
690	PCA SIGNED		30 MAR 00	30 MAR 00
760	START REAL ESTATE ACQUISITION		30 MAR 00	30 MAR 00
780	COMPLETE REAL ESTATE ACQUISITION		30 MAR 01	30 MAR 01
860	HQUSACE CONSTRUCTION APPROVAL		30 OCT 99	30 OCT 99
950	ADVERTISE CONSTRUCTION CONTRACT		30 JUN 01	30 JUN 01
951	BID OPENING		30 JUL 01	30 JUL 01
960	AWARD OF CONSTRUCTION CONTRACT		15 AUG 01	15 AUG 01
961	NOTICE TO PROCEED		30 SEP 01	30 SEP 01
970	COMPLETION OF CONSTRUCTION		30 SEP 07	30 SEP 07
981	O&M MANUALS TRANSFER TO SPONSOR		30 MAR 98	30 MAR 98
982	AS-BUILT DRAWINGS TRANSFER TO THE SPONSOR		30 MAR 08	30 MAR 08
994	FISCAL CLOSE-OUT		30 SEP 08	30 SEP 08
999	FINAL ACCEPTANCE/TRANSFER TO PARTNER		31 DEC 08	31 DEC 08

BUDGETS AND COST ESTIMATES

Cost estimates and durations were furnished by the San Francisco District's technical branches. They were developed by each performing organization, based on each organization's preliminary assessment of the draft feasibility study report for each organization's required work tasks during PED. The schedule for PED and construction are based on the critical path network. Cost estimates and budgets will be reconciled to fiscal year funding.

TABLE 4
Summary of PED Estimate

TASK	LPP	NED Increment	TOTAL
Legal Review	2,500	2,500	\$5,000
Basic Design Survey	550,000	0	\$550,000
Hydraulics	161,300	67,000	\$228,300
Civil Design (Prelim Design for DM)	424,000	367,000	\$791,000
Civil Design (Final Design for P&S)	372,000	275,000	\$647,000
Structural Design (Prelim Design for DM)	66,000	50,000	\$116,000
Structural Design (Final Design for P&S)	383,000	275,000	\$658,000
Geotech	1,688,000	112,000	\$1,800,000
Cost Estimating	17,000	17,000	\$34,000
Specifications	37,000	0	\$37,000
Environmental Support	268,000	16,300	\$284,300
Fish & Wildlife Coordination (USFWS)	29,000	0	\$29,000
Cultural Resources	45,000	0	\$45,000
Value Engineering Studies	50,000	50,000	\$100,000
Economics Update/Analysis	10,000	0	\$10,000
Real Estate	50,000	25,000	\$75,000
BCO Review	12,000	12,000	\$24,000
PPMD	194,000	0	\$194,000
Prepare Design Memorandum	77,000	0	\$77,000
Attend Monthly Mtgs (Corps/SCVWD)	80,000	0	\$80,000
Attend Monthly Mtgs (A/E firm)	100,000	0	\$100,000
Technical Management	130,000	0	\$130,000
QC Review	60,000	0	\$60,000
P/E S&A	25,000	0	\$25,000
Total	\$4,830,800	\$1,268,800	\$6,099,600
Rounded	\$4,831,000	\$1,269,000	\$6,100,000

NOTE: Table 4 does not include costs which will be incurred by the local authorities. Such costs include the design of well replacements in Reaches 9A and 11B (to be provided by the San Jose Water Company), bridge designs (Pearl Avenue and Willow Glen Way), and HTRW cleanup costs.

TABLE 5
Summary of Construction Estimate

ITEM	NED	NED
Preconstruction Engineering and Design (PED)	4,831,000	1,269,000
Construction Contract	63,084,000	40,367,000
Engineering and Design During Construction	3,500,000	2,800,000
Project Management	582,000	290,000
Supervision & Administration	1,500,000	1,200,000
Lands, Easement, Rights-of-Way <u>1/</u>	50,033,000	30,666,000
Relocations/Bridges	14,685,000	8,491,000
Total	\$138,215,000	\$85,083,000

1/ Includes Real Estate during construction.

Cost Breakdown

Cost allocations are made to determine an equitable distribution of project costs based on the project's purposes. The Bypass Channel Plan (LPP) allocates costs to flood control, recreation, and local betterments. All project features, except the features associated with recreation and betterments, are subject to a five-percent up-front cash contribution by the local sponsor. The sponsor is then responsible for all Lands, Easements, Rights of Way, Relocations, and Disposal (LERRD) and any cash contributions that may be required to bring the local share up to 35% of the total project cost. If the cash contribution plus the costs of LERRD are less than 35% of the project first costs, the local sponsor will pay the difference in cash. If the cash contribution plus the LERRD is greater than 50% of the project first costs, the project will be cost-shared at a rate of 50% Federal and 50% non-Federal. Recreation features associated with the Bypass Channel Plan will be cost-shared at a rate of 50% Federal and 50% non-Federal, and betterments are 100% non-Federally funded. All costs for operation, maintenance, repair, replacement, and rehabilitation (OMRRR) are a non-Federal responsibility.

The estimated cost for flood control features for the NED Plan is estimated to be \$83,520,000. The Federal share of costs will be limited to 65% of this figure, or \$54,288,000. The estimated cost for flood control features for the LPP Plan is estimated to be \$130,618,000. The Local Sponsor must, therefore, pay 5% of the \$130,618,000 or \$6,531,000 during construction. In addition, the Local Sponsor is also required to contribute 50% of the recreation costs and 100% of the betterment associated with the Pearl Avenue bridge replacement. The total non-Federal contribution will be approximately \$81,232,000, including cash and LERRD contributions.

TABLE 6
Cost Apportionment
Project Cost Summary - Oct 1997 Price Level
(\$1,000)

Account	Item	NED Plan		LPP Plan	
		Oct 97 Price Level	Fully Funded Estimate	Oct 97 Price Level	Fully Funded Estimate
1	Lands & Damages	30,666	36,616	50,033	59,741
2	Relocations	8,491	10,139	14,685	17,534
6	Fish & Wildlife Facilities	1,719	2,053	3,076	3,673
15	Floodway Control & Diversion Structures	38,648	46,147	58,008	69,264
14	Recreation Facilities	0	0	2,000	2,388
	Subtotal	79,524	94,955	127,802	152,600
30	E&D	2,800	3,343	3,500	4,179
31	S&A	1,196	1,428	1,533	1,830
	Total	83,520	99,726	132,835	158,609

* Lands and Damages associated with recreation and mitigation are nominal since all recreation and mitigation features will be implemented on project lands needed for flood control purposes.

* Fully funded to mid-point of construction (Nov 2003).

CURRENT BENEFITS PLAN

The total average annual project benefits associated with the LPP are approximately \$23,577,000, excluding recreation benefits. These benefits are expressed in October 1997 price levels using the Federal water resources project discount rate of 7-1/8 percent. The benefit-to-cost ratio for this plan is $\$23,577,000/\$11,455,000 = 2.1$ to 1.

TABLE 7

BENEFIT-TO-COST CALCULATION (Oct 1997 Price Level)
BYPASS CHANNEL PLAN

<u>Average Annual Benefits</u>	\$23,577,000
<u>Annualized Cost</u>	\$11,455,000
<u>Net Annual Benefits</u> (\$23,577,000 - \$11,455,000)	\$12,122,000
<u>Benefits/Costs</u> (\$23,577,000/\$11,455,000)	2.1 to 1

RESOURCE ALLOCATION PLAN (RAP)

The following presents an overview of the specific input and responsibilities for project development by organizational elements within the Santa Clara Valley Water District (SCVWD).

The study is being sponsored by the Santa Clara Valley Water District. The SCVWD offices are located at 6489 Camden Avenue, San Jose, California. Major study decisions are made by the study's Executive Committee members, whose role is the overall management of the study and project phases. The SCVWD members of the Executive Committee include the Assistant General Manager (Flood Control), the Flood Control Department Manager, the Flood Control Project Development Branch Manager, and the Project Manager.

All policy decisions, financial commitments and binding agreements relating to the Study are approved by the SCVWD. The SCVWD is required to approve any changes to the PED Cost Sharing Agreement (PCSA), and in the future will have to approve the Project Cooperation Agreement (PCA). Further, final project acceptance will be made by the SCVWD.

The SCVWD is the local manager for the project during the planning and authorization stages. SCVWD personnel will participate in study team meetings and will be responsible for legislative liaison and management of consultants retained by the SCVWD to provide technical input to the San Francisco District. Additionally, future involvement will include the following:

Providing input for the Plans & Specifications (P&S).

Providing minimal periodic inspection during the construction phase. However, they will fully participate in the final inspection for acceptance of the contractor's work.
Participating and providing input into the preparation of the Operation and Maintenance Manual (O&M Manual).

PROJECT COOPERATION PLAN

Introduction

The Purpose of the Project Cooperation Agreement (PCA) is to spell out in a signed agreement the responsibilities of the Federal Government and the Santa Clara Valley Water District (SCVWD) for design, construction, operation and maintenance of the project.

Responsibility

The Project Manager is responsible for preparing, coordinating, negotiating and executing the PCA. The PCA will be prepared for execution by the Assistant Secretary of the Army for Civil Works and the General Manager, Santa Clara Valley Water District. The draft PCA is formally developed in conjunction with the SCVWD during PED (ER 1165-2-131). Engineering Division will review the PCA and assist the PM as needed during negotiations with the SCVWD.

Project Cooperation Agreement

The PCA will be developed based on the recommended plan; it includes features which address the objective of providing protection against flooding. The project costs are therefore assigned to flood damage reduction, recreation, and betterments. Section 103(a) of the Water Resources Development Act of 1996 (Public Law 99-662) provides that the Federal share of a flood damage reduction project is 65% of the total project first cost.

The non-Federal share of the first cost for the flood damage reduction features is 35%, including Lands, Easements, Rights-of-way, Relocations and Disposal areas (LERRD). All costs for Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRRR) of the flood damage reduction features are a non-Federal responsibility.

In order to implement the recommended plan, the local Sponsor must provide all Lands, Easements, Rights-of-way, Relocations, and Disposal areas (LERRD) prior to the start of the project's construction. If the value of the contributions required for these items is less than 35% of the project cost, the local Sponsor must pay, during construction, the additional amount need to bring the total contribution of the local Sponsor up to 35% of the project first cost. The non-Federal share shall not exceed 50 percent of the cost of the project assigned to flood control.

The local Sponsor will provide written assurance that it has the capability and will follow the necessary procedures to comply with Sections 210 and 305 of Public Law 91-646, the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970", prior to the execution of the PCA. Adherence to the requirements of Public Law 91-646, as amended by Public Law 100-17, throughout the acquisition process is essential for a Federally funded project.

The PCA is scheduled for execution in March, 2000 after the approval for New Construction start is received. The Local Sponsor will be directed to begin real property acquisition for the project only after the PCA is fully executed. A Local Sponsor may consider it advantageous to start the process at an earlier date. However, the Local Sponsor will be made aware that all

actions taken before formal PCA execution are at their own risk.

Upon completion of the acquisition program, CESP-K-RE will assist in determining the credits to be given the Sponsor for land acquisition and administrative costs.

A financial analysis will be prepared in January, 1998 to determine whether or not the Santa Clara Valley Water District has the capability to finance the proposed project.

Applicable Laws and Regulations

- a. Flood Control Act of 1970, Section 221.
- b. Water Resources Development Act of 1986, Public Law 100-662.
- c. Water Resources Development Act of 1988, Public Law 100-676.
- d. ER 37-2-10, Financial Administration, Accounting and Reporting-Civil Works Activities.
- e. ER 405-1-12, Real Estate Handbook, Chapter 12, Local Cooperation.
- f. ER 1165-2-18, Reimbursement for non-Federal Participation in Civil Works Projects.
- g. ER 1165-2-29, General Credit for Flood Control.
- h. ER 1165-2-131, 15 April 1989, Local Cooperation Agreements for New Start Construction.
- i. ER 1105-2-180, 29 January 1988, Financial Analysis in Support of Construction Recommendations.
- j. EC 1165-2-152, 15 December 1988, Flood Control Project Cost Sharing and Related Guidance.

ACQUISITION PLAN

The award of any contract during the PED phase which obligates Federal or State appropriations is exclusively within the control of the Federal or State Government, respectively.

The award of any contract by the Sponsor for services which obligates funds of the Sponsor and does not obligate Federal or State appropriations shall be exclusively within the control of the Sponsor, but shall be subject to applicable Federal and State statutes and regulations.

The procurement of professional services for the PED phase will be accomplished through both open-end indefinite quantity and/or indefinite delivery type contracts and specific service contracts. The Engineering Division will prepare scopes and contracts for Professional Service and Architect-Engineer (AE) contracts in accordance with project requirements. The Project Manager will assure that funding is appropriate and proper accounts are utilized. Corps of Engineers procurement activities are conducted by the contracting elements of the San Francisco District in accordance with the Federal Acquisition Regulations (FAR) 15.600 for Professional Services and FAR 36 for AE contracts for engineering services.

The contract for the construction of the total project (recommended plan plus betterments) will be accomplished under at least three construction contracts at an estimated value of \$63,084,000, with a contract construction performance period of 72 months. Award of a firm fixed price contract will be made using full and open competition in accordance with the FAR.

Separate utility contracts are appropriate when dealing with the sole source owners of the various utilities.

The acquisition of real estate will be accomplished by the Sponsor, the Santa Clara Valley Water District, which is required to provide all Lands, Easements, Rights-of-way and Relocations and Disposal areas (LERRD) required for construction, operation and maintenance of the project. The local sponsor receives credit towards its share of project costs for the fair market value of required real estate as of the time appraisal was obtained by the local sponsor and submitted to the Corps for approval. For real estate acquired by the local sponsor within a five-year period prior to the date the Local Cooperation Agreement is signed, the credit will also include the costs of acquisition, such as closing and title costs, appraisal costs and reasonable indirect costs. In addition, the costs of providing relocation assistance to persons and businesses displaced by the project are creditable items.

REAL ESTATE

Real Estate Acquisition

The Sponsor is required by law to provide all necessary lands, easements, rights-of-way relocations and disposal areas for construction, operation, and maintenance. The Santa Clara Valley Water District will be responsible for land acquisition. The terms and conditions of Federal acquisition on behalf of the Sponsor will be set out in a written agreement, and will be subject to the required financial participation of the sponsor under the PCA in all land and administrative costs incurred. Title to lands and interests acquired by direct purchase will be conveyed by grantors directly to, and be accepted by, the Sponsor. If condemnation proceedings are necessary, title will be acquired in the name of the United States for subsequent conveyance to the Sponsor when the proceedings are completed.

In consultation with the Santa Clara Valley Water District and affected District elements, CESP-K-RE will determine the minimum interests in real estate required to meet project needs. Maps of the areas, descriptions of the estates required, and the acquisition schedule will be coordinated with the Sponsor.

See Appendix D for Real Estate Supplement (RES). The RES contains an overall plan describing the minimum real estate requirements for the proposed project, including estates, costs and schedules. It was prepared by the Sacramento District, Real Estate Division.

Real Property Requirements

The non-Federal sponsor will acquire the minimum interest in real estate which will support the construction and subsequent operation and maintenance of the project. When the Design Memorandum is completed, the Sacramento District Real Estate Division will furnish the non-Federal sponsor preliminary right-of-way maps indicating areas and estates that are to be acquired. When the PCA is executed, the Real Estate Division will provide updated maps and request the non-Federal sponsor to proceed with acquisition.

The estates to be acquired are the standard estates prescribed by the Corps regulation. Approximately 160 acres will be required for the project for an approximate cost of \$50,000,000 (October 1997 Price Level), including administrative costs. Administrative costs to acquire these lands will be approximately \$457,000 for the Federal government, and \$3,575,000 for the non-Federal sponsor.

TOTAL QUALITY MANAGEMENT PLAN (TQM)

Introduction

"Quality Management" is the process by which quality projects are produced on time and within budget. The purpose of quality management is to ensure that a process is functioning which will result in high quality products being produced by the District. High standards of quality are essential so that designs can result in facilities which meet the customer's needs in a timely, cost effective, and environmentally sound manner.

The Project Manager (PM) must assure that quality is a prime consideration of all technical elements throughout plan formulation, design and construction and they are providing a quality product. This entails facilitation by the PM throughout the project life cycle to assure that appropriate coordination occurs among the various non-Federal Sponsor, State, and Federal agencies and the Corps team.

Design Quality Management

a. Reviews. Interdisciplinary reviews will be accomplished throughout the PED effort by in-house staff, other COE offices, the Sponsor and experts in the private sector. The PM must assure that pressures of deadlines or funding constraints do not prevent thorough checking and review of reports or designs. Before being transmitted for review by higher authority, all documents will be thoroughly checked for technical errors and reviewed by knowledgeable management personnel for conformance to policy. In-house checking, reviews and inspections should be identified activities on the detailed project schedule maintained by the technical elements. Reviews by higher authority should be monitored to assure timeliness and provide clarification to reduce misunderstandings early on.

b. Coordination. Coordination of Federal policies and criteria are key to integrating the needs of the Sponsor and other public agencies. This is important to assure that Corps planners and designers understand what project outputs are desired by the public and that all the members of the public understand the potential constraints imposed by costs and regulations. Periodic coordination meetings with the Sponsor shall be held to discuss their expectations. Similarly, periodic meetings of the Corps team in the District should be held to pass on Sponsor and public expectations, discuss how the project can best meet those expectations, and reinforce the team's commitment to high quality products. Any major changes in the planned activities will be coordinated by and with the PM. Meetings with the design team members and the project manager will take place to discuss progress and problems throughout PED. If problems cannot be resolved at the Project Manager level, the problem along with alternative solutions, will be elevated to the District or Division Project Review Board (PRB) for resolution.

Construction Quality Management

a. Quality Assurance (QA) and Contractor Quality Control (CQC) representatives shall have job site discussions on the interrelationship of their activities. Discussions should emphasize the controls necessary to eliminate routine or repetitive construction deficiencies. Formal meetings

will be held during the project to evaluate the effectiveness of the CQC plan in preventing deficiencies.

b. The three phases of control are the most important aspects of CQC. The most critical function at the commencement of any construction activity is the thoroughness in which the contract requirements are understood and implemented on each definable feature of work.

c. A QA plan will be developed by the field office which will address the overall QA operations and responsibilities of government personnel. After initial development, it will be reviewed and updated as often as necessary.

d. District QA assistance visits will be made to assist field office personnel with their respective quality assurance programs and to disseminate key information learned throughout the District. Applicable Laws, Regulations and Guidance

a. ER 415-1-10, Contractor Submittal Procedures;

b. ER 415-1-11, Bidability, Constructibility, Operability;

c. ER 415-1-302, Inspection and Work Records;

d. ER 415-345-38, Transfer and Warranties; and

e. ER 1110-1-8100, Laboratory Investigation and Material Testing.

f. Draft ER 1110-___, dated 30 January 1990, subject: Design Quality Management.

g. ER 1180-1-6, dated 31 July 1986, subject: Construction Quality Management.

h. ER 5-2-1, Advance Copy dated 12 July 1989, subject: Life Cycle Project Management System.

VALUE ENGINEERING PLAN

Introduction

The purpose of Value Engineering is to achieve cost savings without sacrificing project function, quality, or safety. Additionally, it is the Corps of Engineers policy to require a formal Value Engineering (VE) Study on all projects with a construction cost of \$2,000,000 or greater. The VE study will be evaluated on the basis of life cycle cost.

Responsibilities

The Value Engineering (VE) Plan is administered by the Value Engineering Officer (VEO) and consists of a study that includes a cost effectiveness review and value engineering analysis. In accordance with EC 1110-2-538, this cost effectiveness review of the design documents will be accomplished under the direction of the Value Engineering Officer using value engineering methodology.

The study begins by the technical manager providing three sets of design documents to VEO for review at the earliest design stages (draft DM, draft basis of design). These design documents shall include a comprehensive engineering estimate. At the start of the study, the VEO will request a meeting with the designer and project manager. Upon completion of the study, the VEO will provide copies of the study to all interested parties for their review and comments. If possible, a meeting should be held presenting the study. At this meeting, participants will have the authority to approve and make recommendations for incorporating the VE proposal. The technical manager will make the final determination whether the VE is approved or disapproved as presented by the VEO.

Lastly, any design documents will have a certificate of cost effectiveness signed by the District Engineer. This certification will be based on review of cost control techniques which will ensure that the project is designed in the most cost effective way for the life of the project.

Applicable Laws and Regulations

- a. EC 1110-2-538 (dated 28 Feb 89).
- b. Section 91 of the Water Resources Development Act of 1986.
- c. CE 1110-2-259, dated 1 Feb 88, Review of Cost Effectiveness of Design.
- d. CEMP-ZV Memorandum, subject: Interim Guidance for Cost Effectiveness Review Value Engineering, dated 7 Sep 89.
- e. OCE supplement 1 to AR 5-4.
- f. ER 1110-2-150.

SAFETY PLAN

Introduction

All project participants have a responsibility to be aware of and help identify and resolve safety issues such as hazardous operations, special conditions, and community or environmental concerns as early on in the project as possible. The Corps' Safety and Occupational Health Office will provide guidance and advice in all areas of safety. Periodical reviews of the project for safety consistent with that office's mission and function will be performed. It is the Corps' objective to identify potential hazardous situations early and manage them properly, within the constraints of operational effectiveness, time and cost. It is equally important to include safety, health, and loss control in the decision making process for plan selection, engineering and design, and in the preparation of the plans and specifications.

PED Safety

During preparation of plans and specifications, a preliminary hazard analysis shall be prepared. A copy of this document shall be provided to the District Safety Office and the Sponsor. The preliminary hazard analysis will be reviewed when this effort is initiated. EDM 56, Implementation and Safety Requirements in AE & CE Contracts will be reviewed and followed. The preliminary hazard analysis will serve as the written safety program referred to therein.

Construction Safety

A Safety Plan (Accident Prevention Plan) must be submitted in writing by the contractor(s) prior to commencing work at the site. The contractor is required to address Activity Description, Hazard Analysis, Safety Measures, Emergency Contacts, Duties and Responsibilities and Safety Training Record as a minimum. This plan shall be closely monitored to assure compliance with the contractual safety and health requirements.

Prior to beginning each major phase of work, an Activity Hazard Analysis shall be submitted and accepted. The analysis will address the hazards for each activity performed in that phase and will present the procedures and safeguards necessary to eliminate the hazards or reduce the risk to an acceptable level. The approved job hazard analyses shall be reviewed with workers at the initial inspection for each phase.

On site, regularly scheduled safety meetings will be held at least once a month for all supervisors on the project to review past activities, to plan ahead for new or changed operation, and establish safe working procedures for anticipated hazards. At least one tool box safety meeting shall be conducted weekly by field supervisors or foremen for all workers.

The Resident Engineer will in turn insure that safety regulations required by the plans and specifications and Safety Manual EM 385-1-1 are followed during the construction of the project. Accident reporting and record keeping will be in accordance with Section 2 of EM

385-1-1.

Post-Construction Safety

During Operation and Maintenance compliance inspections, Operations Branch personnel shall check with the Sponsor to inquire about any problems (accidents, damage, nuisances, etc.) associated with the Sponsors end-use of the project. This information shall be provided to the Corps District Safety Office.

Applicable Laws and Regulations

- a. Federal and State Occupational and Health Standards.
- b. Federal and State Clean Land, Air and Water Standards.
- c. MIL STD 882B, System Safety Program requirements, 30 March 1984.
- d. EM 385-1-1, US Army Corps of Engineering Safety and Health Requirements Manual, April 1981 (Revised Oct 1987).
- e. SPD R 385-1-1, Safety Administration.
- g. SPK OM 385-1-1, Safety Administration Manual, 17 January 1986.

SECURITY PLAN

This project does not involve any sensitive military information, classified information or Automated Data Processing (ADP) equipment that processes such information. A separate security plan is therefore not required.

HISTORIC PROPERTY PLAN

Introduction

Historic property refers to any prehistoric and/or historic site, district, building, monument, deposit, structure or object listed in or determined eligible for listing in the National Register of Historic Places (National Register). The National Register was established by the National Historic Preservation Act of 1966 (as amended) and is a listing of historic properties that can be of national, regional, state, or local significance.

The term includes artifacts, records and other remains related to historic properties as well as sites and locations valued by Native Americans or other groups and individuals because of their association with traditional religious or ceremonial beliefs and activities.

Historic properties are identified and evaluated for their significance through the conduct of cultural resources studies. These scientific studies, in addition, determine the research potential of historic properties, analyze potential project effects, and develop alternative preservation and/or mitigation measures.

Responsibilities

The Historic Preservation Act requires federal agencies to "take into account" the effects of a proposed project on historic properties and, as such, is important to the Corps planning process. The cultural resources personnel of the Planning Branch, Environmental Sciences Section, will be responsible for historic preservation activities through the PED and construction phases. These cultural resources personnel are responsible for initiating and carrying through to conclusion any additional coordination required with other State and Federal agencies. This coordination is described as the "Section 106 process" and is required by the Historic Preservation Act.

Feasibility Historic Property Findings

The San Francisco District and Santa Clara Valley Water District concluded a series of cultural resources investigations during the feasibility study phase. The cultural resources that were confirmed as located within the Area of Potential Effects (APE) were found not eligible for listing in the National Register, i.e., they did not qualify as historic properties. The San Francisco District initiated the Section 106 process with the State Historic Preservation Officer (SHPO) in 1995. The Section 106 requirements were not fully met since there is at least one location within the APE where an unconfirmed archaeological site may exist. The site was unavailable for study prior to completion of the feasibility report. It has since been surveyed, but

coordination of the survey results with SHPO will be completed during the PED phase.

In accordance with implementing regulations of Section 106 of the Historic Preservation Act (36 CFR Part 800), the SHPO was requested to review and comment on the cultural resources findings to date. The SHPO concurred with the Corps' conclusion that the known cultural resources within the APE were not eligible for listing in the National Register. Since consultation regarding the potential archaeological site to be investigated will take place during the PED phase, the Corps will satisfy the Section 106 requirements during the PED effort. Full compliance with Section 106 will be evidenced by execution of a Memorandum of Agreement (MOA) by the consulting parties (Corps, SCVWD and SHPO) and by concurrence of the concurring parties (e.g., Native Americans, other "interested parties").

PED Historic Property Requirements

The remaining cultural resources studies to conduct during the PED phase are (1) a National Register evaluation of the archaeological site which was unavailable during the feasibility phase and (2) preparation of a Plan of Action to outline the procedures to be followed when archaeological resources are discovered during construction of the recommended project. The archaeological site evaluation will require that a scope of services and government estimate be prepared by the Corps, and will be implemented through the award of a professional services contract. The Plan of Action, which is necessary to execute the MOA, will involve appreciable coordination with Native Americans and agencies as well as gathering complimentary information from geotechnical and geomorphological sources.

In the event that design changes or refinements to the recommended plan are made during the PED phase, additional surveys, inventories, archeological testing for National Register eligibility and reporting may be required along with necessary Section 106 consultation. Costs for such additional/new activities are not included in the PED cost estimate. *Only the cost of SHPO coordination of the suspected archaeological site and preparing the Plan of Action is provided.* In addition, any lands required for borrow areas, and disposal sites or access roads that are identified during PED must be inventoried for historic properties. Cultural resources personnel should be notified as soon as these changes are determined to minimize possible delays to the project PED phase, and to arrange for adjustments to project resource allocations and costs.

Costs of site-evaluation studies and plan-of-action efforts during the PED phase will be shared with the non-Federal sponsor in accordance with cost sharing required for project construction consistent with other PED costs. The Federal government will finance the non-Federal share of these costs, with the non-Federal share to be recovered in the first year of construction. Costs for identification, survey and evaluation activities are not included in the one- percent limitation for mitigation.

Construction Historic Property Requirements

The Plan of Action will clarify the procedures to follow should archaeological resources be discovered during construction. Generally, for those resources that will be damaged or destroyed by the construction contractor's work, the Corps will afford the Native Americans, the SHPO and the Advisory Council on Historic Preservation (ACHP) an opportunity to comment. For such unanticipated discoveries, the Corps would implement actions, to the extent feasible, that take into account the effects of the project on the discovered cultural materials as well as the comments of the consulting and concurring parties.

The Historic Preservation Act, specifically Section 106 and implementing regulations, do not require the Corps to stop work on the project when cultural resources are discovered during construction. However, the Corps will make reasonable efforts as outlined in the Plan of Action to avoid or minimize adverse impacts to any cultural resources unearthed, taking into consideration the nature of the resource and apparent severity of impacts, until the coordination process with the SHPO and ACHP outlined in 36 CFR Part 800.11 has been completed.

Applicable Laws and Regulations

- a. National Historic Preservation Act (1966, amended 1980 and 1992).
- b. National Environmental Policy Act (1969)
- c. American Indian Religious Freedom Act (1979).
- d. Archeological Resources Protection Act (1979).
- e. Protection of Cultural and Historic Properties (36 CFR 800).
- f. National Register of Historic Places Eligibility Criteria (36 CFR 63).
- g. Engineering Regulation 1105-2-100.

Estimated PED Cost

Estimated labor and contract cost is \$45,000.

ENVIRONMENTAL PLAN

Fish And Wildlife Coordination

Due to the sensitivity of the fish and wildlife resources affected by this project, ongoing coordination with appropriate resource agencies (the U.S. Fish and Wildlife Service (FWS), the National Marine Fisheries Service (NMFS), and the California Department of Fish and Game (CDFG)) will be needed. This will include the following:

- Iterative coordination regarding design details, especially regarding structures that affect fisheries.
- Additional HEP work to ensure that the impacts from revised plans are fully mitigated.
- Additional Section 7 consultation regarding the steelhead trout and the California red-legged frog, if required.

Detailed Mitigation Plan

A detailed plan for mitigation and monitoring must be developed for the LPP, similar in scope to the mitigation and monitoring plan developed for the downtown Guadalupe River project. This plan will include criteria for plant species to be used, planting densities, irrigation, weed control, control of trespass, and success criteria. This plan will be coordinated with the resource agencies. It may be prepared by the local sponsor or a contractor. Limited revisions will be made to the NED mitigation plan developed during the feasibility study phase.

Coordination With Other Agencies And The Public, Including The Obtaining Of Permits

Coordination with other agencies such as the Regional Water Quality Control Board will be needed for the LPP, but not for the NED plan. Certification or waiver under Section 401 of the Clean Water Act will be needed. Coordination with the City of San Jose will be required in regards to the recreation plan. Meetings with the public regarding construction issues are recommended.

Environmental Assessment

It is assumed that sufficient small changes to the project and/or mitigation plan will occur such that an Environmental Assessment (EA) will be needed, as with the downtown Guadalupe River project.

Internal Coordination

Close ongoing coordination with the civil design team will be needed to ensure adequate environmental protection, both in the project design and in construction techniques and safeguards.

FEMA/NATIONAL FLOOD INSURANCE PROGRAM (NFIP) ADEQUATE PROGRESS PLAN

1. References.

- a. Title 44, Chapter 1, Parts 59-77, Code of Federal Regulations (CFR).
- b. Federal Emergency Management Agency, A Guide For Community Officials, FIA-12, Jan 90.
- c. CECW-P/CECW-L 27 Apr 93 Memorandum, Subject: Timely Realization of Flood Damage Reduction Benefits.
- d. CECW-P 10 Apr 97 Memorandum, Subject: Guidance on Levee Certification for the National Flood Insurance Program.

2. The upper Guadalupe River project will impact the City of San Jose's requirements for continued participation in the National Flood Insurance Program (NFIP), administered by the Federal Emergency Management Agency (FEMA). The purpose of this plan is to ensure that the City and the local sponsor receives timely realization of flood insurance rate reduction benefits. This coordinated plan will alert FEMA and the local community to take necessary actions to revise the community's Flood Insurance Rate Map (FIRM) as appropriate. This will allow the City of San Jose to receive the maximum benefits from both the NFIP and the Corps project. Coordination shall take place during this process with the Region IX Office of FEMA (Presidio of San Francisco, Building 105, San Francisco, CA 94129, (415) 923-7177).

3. Because the Chief Executive Officer (CEO) of the community is responsible for ensuring the community meets its obligations as a participant in the NFIP, the CEO (or officials they designate) will submit the request for map revision to the appropriate FEMA Regional Office (in this case, Region IX). In general, FEMA will not revise an effective NFIP map to show the effects of physical changes that will occur in the floodplain as a result of proposed projects or future conditions. However, a revision request may be based on the ultimate effect of a flood protection system that is under construction at the time of the request and involves Federal funds.

4. To support a request for such a revision, the requester must submit the following data to show that the requirements of Section 61.12 of the NFIP regulations have been met:

- a. Evidence that adequate progress has been made on construction.
- b. Complete statement of all relevant facts concerning the flood protection system, including, but not limited to, supporting technical data, cost schedules, budget appropriation data, and extent of Federal funding of the construction of the system. The statement must include information that identifies all persons affected by the system, a full and precise statement of the purpose of the system, and a detailed description of the system, including construction completion target dates.
- c. Copies of all contracts, agreements, leases, instruments, and other documents related

to the system.

d. Analysis that shows how the statement of facts (b) and the documents (c) bear on the evidence of adequate progress (a).

e. Statement of whether the community has previously requested a determination concerning the same subject and, if so, the disposition of that request.

5. The major milestone "965, FEMA/NFIP Adequate Progress" has been included in the project schedule. This milestone will be accomplished by a letter to FEMA notifying them that the project has reached the "adequate progress" point of construction. As defined by law, "adequate progress" will have been made when the project costs have been 100 percent authorized, at least 60 percent appropriated, and at least 50 percent expended, and where the project itself is at least 50 percent completed. San Francisco District will keep the local sponsor and the City of San Jose apprised of the schedule for achieving the adequate progress point of construction.

6. San Francisco District is responsible for the Preconstruction Engineering and Design (PED) phase of the project. The technical data necessary to incorporate the upper Guadalupe River project into the City of San Jose's FIRM will be contained in the Engineering Appendix accompanying the Design Memorandum. The preparation of the Engineering Appendix is the responsibility of the San Francisco District.

7. The following is the minimum technical data necessary to incorporate a Civil Works project into a local community's FIRM (data to be provided by San Francisco District unless noted otherwise):

a. A brief description of the project and the methodologies used to determine the hydrologic and hydraulic parameters.

b. A hydrologic analysis of and hydraulic backwater model for the 100-year flood discharge reflecting as-built conditions.

c. Mapping of the entire area covered by the as-built conditions model, indicating the locations of all cross sections used in the hydraulic model and delineating the 100-year flood plain boundary on a suitable topographic base.

d. Annotated flood profiles depicting the as-built 100-year flood elevations.

e. Certification that the project has been adequately designed to withstand a 100-year flood event.

f. An indication of who is responsible for operating and maintaining the project. (Upon completion of the project, San Francisco District will provide the project Operation and Maintenance Manual to FEMA.)

OPERATION AND MAINTENANCE PLAN

Introduction

An Operation and Maintenance Manual will be prepared and presented to the Local Sponsor upon completion of project construction. The purpose of the manual is to provide a clear and concise guide to the Santa Clara Valley Water District for the maintenance and operation of the flood damage reduction project. Additionally, this manual will insure that the structures provided by the government will obtain the maximum benefits and is required for all projects and units thereof that are turned over to non-Federal operators.

Contents of the O&M Manual

The O&M manual will contain a description of the construction and final project as it was built, not designed. The as-built drawings and the final real estate map will be included in the Operations and Maintenance Manual. The manual will also contain the responsibilities of the Superintendent for the project, specific O&M requirements and suggested flood fighting methods. During the preparation of this manual the Santa Clara Valley Water District shall be given the opportunity to review, comment and revise.

Transfer the Project to the Sponsor

The project transfer letter shall be ready to be signed as soon as the project or feature is formally accepted from the construction contractor, or if operational constraints require a portion of a feature shall be turned over as soon as practical. The transfer letter is prepared by the Construction-Operation Division for the Colonel's signature. The Project Cooperation Agreement (PCA) shall either (a) require the Sponsor to accept the project at the time of construction completion, or (b) consider Sponsor's requests for the Corps to operate and maintain the project on an interim basis using Sponsor's money, until the Sponsor can take over the responsibility. The assumption of this responsibility by the Corps must be assessed early enough to determine if sufficient manpower will be available. The O&M manuals or interim manuals shall be provided to the Sponsor at the time the project is transferred.

Applicable Laws and Regulations

- a. Flood Control Act of 1970, Section 221
- b. Water Resources Development Act of 1986, Public Law 99-662
- c. Water Resources Development Act of 1988, Public Law 100-676.
- d. ER 1130-2-304, Project Operations Manuals.
- e. Title 33 CFR, Part 208.10

MANAGEMENT CONTROL PLAN

Management of the project is based on the Project Management system as defined in ER 5-7-1. A project manager will serve as the focal point, as described in the regulations. The project manager will be responsible to ensure that the project is maintained on schedule and within budget.

The San Francisco District Management Plan defines the District's requirements for project execution. The PMP together with the District Management Plan provides guidelines for the execution of this project. Within the District, the Project Review Board (PRB) will provide periodic guidance on this project, as necessary.

The basis for management of schedule and costs is the detailed schedule, which will be updated as necessary. These schedules and costs are used to assign work to managers in organizations which are responsible for their assigned tasks. These managers will have the responsibility of ensuring that the tasks are accomplished on time and within budget. In addition, these managers will provide periodic reports to the Project Manager on the status of work. If potential problems are identified, they may recommend changes in written memorandum or reports. If the recommended changes affect the approved schedule and cost estimate, a Schedule and Cost Change Request (SACCR) would be required. The Project Manager may approve the SACCR or, if it is beyond the PM's authority, the PM will present it to the PRB for approval.

Each organization is responsible for the technical adequacy of the products which it produces (See Chapter 12, Total Quality Control).

A management committee will be formed with representatives from the District and local sponsor. This committee will meet to resolve issues that arise during project execution. This committee will recommend changes as necessary to the PMP and the contracting officer as appropriate.

REPORTING REQUIREMENTS

Upward reporting within the Corps of Engineers will be based on the requirements of ER 5-7-1. The reports required will serve as the primary method of reporting on progress and issues of the project. The PMP will be updated as changes occur and revised pages will be provided to all holders of the PMP. These updates and the reports required in ER 5-7-1 will serve to keep everyone informed of project execution.

The historically used Project Executive Summary (PES) has been replaced by two electronic financial monitoring systems, CEFMS and PROMIS. The primary upward reporting process is now the Project Review Board (PRB), which meets monthly in the San Francisco District offices. Coordination between the Corps and the Sponsor will be maintained by regularly scheduled team meetings. The Sponsor is also welcome to attend all PRB meetings.

If changes to the schedule or costs are considered necessary, a SACCR would be used to obtain approval.

Coordination with the local sponsor will primarily be through the management committee, which is composed of representatives of the District and the local sponsor. The local sponsor will also have copies of the PMP and receive all revisions to it.

CHANGE CONTROL PLAN

Methods to maintain scope, cost and schedules within the District are described in the Project Management Plan (PMP). The PMP becomes the basis for execution of the project.

The process to request and obtain approval for changes in scope, cost, and schedules outside the District are defined in ER 5-7-1 and will be utilized, if required.

The PM is responsible to insure that the project is executed as defined in the PMP. The development of a detailed description of required tasks and the cost and time necessary to complete these tasks is the most basic requirement to insure the completion of the project without having to make changes to the scope, time or cost of the project. The tasks, schedule and costs are presented elsewhere in this PMP.

The basic method of executing the plan within the District is the utilization of PROMIS and CEFMS, the standard Corps electronic financial management tools.

If changes are required for the work in progress, the working organization will document the reason for the change and make a change request. This request would be reviewed and approved at the appropriate level (PM, PRB, District Engineer, etc).

APPENDIX A
RESPONSIBILITY ASSIGNMENT MATRIX

RESPONSIBILITY ASSIGNMENT MATRIX
UPPER GUADALUPE PED PHASE

<u>Task Name</u>	<u>Description</u>	<u>OBS1</u>	<u>OBS2</u>	<u>OBS3</u>
Design Survey	Conduct Topographic Survey & Mapping	SPN-PE-EM	SPN-PE	
Hydraulics	Review/Modify Hydraulic Analysis	SPN-PE-EH	SPN-PE	
Civil Design	Civil Design (alignment, revised quantities)	SPN-PE-EM	SPN-PE	
Structural Design	Structural Design (slopes, bridges)	SPN-PE-EM/EN/SCVWD	SPN-PE/SCVWD	
Geotech Oversight	Manage Geotechnical Drilling and Testing	SPN-PE-EN	SPN-PE	
Geo. Drilling Contract	Geotechnical Drilling Contract	SPN-PE-EN	SPN-PE	CONTRACT
Lab Tests	Lab Tests for Soil Borings	SPN-PE-EN	SPN-PE	CONTRACT
Cost Estimates	Prepare MCACES Cost Est's	SPN-PE-EO	SPN-PE	
Specifications	Prepare Plans & Specs	SPN-PE-EO	SPN-PE	
Enviro Support	Environmental Assessment/Mitigation	SPN-PE-PP	SPN-PE	
F&W Studies	Fish & Wildlife Studies	SPN-PE-PP	SPN-PE	USFWS
Cult. Res. Study	Perform Cultural Resources Study	SPN-PE-PS	SPN-PE	
Value Engineering Stud	Manage V/E Study	SPN-PE-EM	SPN-PE	CONTRACT
Economics Update	Update Econ. Benefits	SPN-PE-C	SPN-PE	
Real Estate Support	Prepare Real Estate Maps	SPK-RE-A	SPN-PE	
BCO Review	Review Bidability/Constructability/Operability	SPN-CO	SPN-CO	
Project Mgmt	Perform Project Management	SPN-PM	SPN-PM	
Technical Mgmt	Perform Technical Management	SPN-PE-EM	SPN-PE	
Reproduction	Reproduce DM, Plans & Specs	SPN-PE-EM	SPN-PE	CONTRACT
Technical Review	Perform Technical Review	SPN-PE/SCVWD	SPN-PE/SCVWD	
QCR	Conduct Quality Control Review	SPN-PE-EM	SPN-PE	
Prepare DM	Prepare Design Memorandum	SPN-PE-EM	SPN-PE	

APPENDIX B
REAL ESTATE PLAN

**REAL ESTATE PLAN
UPPER GUADALUPE RIVER FLOOD PROTECTION STUDY
SANTA CLARA COUNTY, CALIFORNIA**

INTRODUCTION

This report addresses the real estate requirements for the proposed flood control project for the upper Guadalupe River. This study was conducted under Section 4 of the Flood Control Act of 18 August 1941. A Reconnaissance report was prepared and completed in November 1989 for which a Real Estate Section was prepared. The Reconnaissance Report was approved in April 1990. The Feasibility Cost Sharing Agreement was signed in August 1990.

The Corps of Engineers' Sacramento District office completed a report in December 1991 entitled Guadalupe River General Design Memorandum. This project was authorized under Section 401(b) of the Water Resources Development Act of 1986 (Public Law 99-662), as amended by the Energy and Water Development Appropriations Act for Fiscal Year 1990 (Public Law 101-101). The Sacramento District is currently constructing portions of this project which are located in the vicinity of downtown San Jose and downstream of the area studied in this report. The alternatives studied in the Upper Guadalupe River Feasibility Study would pass flows through the downtown Guadalupe Flood Control Project.

There is no Federally owned land within the lands, easements, and rights-of-way required for this project.

The project's plan is to reduce damage to surrounding communities due to flooding from the upper Guadalupe River and its tributaries, Canoas Creek and Ross Creek. A secondary plan in this project is to include recreation features. It should be noted that there will be no additional lands required for the recreation features other than what is already required for the flood control project.

GENERAL DESCRIPTION OF THE PROJECT AREA

The project area is situated in an urban area of southwestern San Jose, in the extreme southern area of the Santa Clara Valley. Santa Clara Valley lies in the center of Santa Clara County in west central California, immediately south of San Francisco Bay. The county is bounded on the northeast by Alameda County, on the northwest by San Mateo County, and the southwest by Santa Cruz County. The area is highly urbanized. There are widespread residential subdivisions that are interspersed with commercial shopping centers, light industrial development, and some open spaces. The open spaces include three city-operated neighborhood parks, percolation ponds and a half-acre parcel used as a community garden, all owned by the Santa Clara Valley Water

District (SCVWD). There are also water well fields owned by the San Jose Water Company adjacent to the Guadalupe River. The study area has been divided into reaches, Reaches 7 through 13, in addition to Ross Creek and Canoas Creek. A description of the boundaries of each reach is in the main report.

GENERAL DESCRIPTION OF THE PROJECT AND TOTAL ACREAGE REQUIRED (Locally Preferred Plan and National Economic Development Plan)

Three alternative plans were formulated in addition to the no-action alternative for analysis in the Feasibility Report. They are the Willow Glen Plan, the Valley View Plan, and the Bypass Channel Plan. The National Economic Development (NED) Plan has been identified as the Valley View Plan because it maximizes the net benefits. However, the San Francisco District is recommending that the Bypass Channel Plan be constructed as the Recommended Plan. Following is the description of the NED and LPP Plans.

NED PLAN (Valley View Plan)

The Valley View Plan increases the minimum main stem capacity downstream of Canoas Creek to 12,000 cfs (providing sufficient channel capacity to convey the mean 50-year event. The improvements include channel widening and the replacement of the UPRR bridge in Reach 7, construction of low floodwalls, from one-to-three feet in height on the east and west banks of Reach 8, widening of the east bank near the Curtner Avenue Bridge, and replacement of the Hillsdale Bridge. All of the channel widening in this reach and upstream would be contained between the top of banks of the existing channel. Farther upstream, in Reaches 10 and 11, the channel would be widened on the appropriate banks given the specific flow constraints at that location.

Improvements to Ross Creek consist of widening the channel and construction of a 600-foot-long section of floodwall which would begin at Jarvis Avenue; and adding culverts at Almaden Expressway and Jarvis Avenue.

Improvements along Canoas Creek include adding culverts under streets and constructing low floodwalls on both banks.

This plan does not include any recreation features.

A total of 81.44 acres are required for this project. This will provide 25.38 acres for channel improvement easements for bypass channels and floodwalls, 13.88 acres for mitigation, 31.90 acres for flowage easements, and 10.28 acres for temporary work area easements. Some of the required lands are owned by the sponsor, the SCVWD, and some are owned by other public agencies. The SCVWD also has flood control easements over 2.42 acres of privately owned

lands and over 1.55 acres of publicly owned lands. In addition, they have a maintenance easement over 1.08 acres of privately owned lands. There is, therefore, only 5.05 acres that are affected by easements out of the total 81.44 acres required for this project. The Appraisal Branch reviewed these easements and determined that these easements did not have a significant impact on the gross appraisal for this project at this phase. These easements will be considered in the site specific appraisals during acquisition of the lands for the project. The tables on the following pages detail the real estate requirements, ownerships, and values for this plan:

PROJECT FEATURE	ESTATE	ACREAGE/OWNERSHIPS	**EST. VALUE
Reach 7: (Southern Pacific RR river crossing to Union Pacific RR (UPRR) river crossing) Widen channel, construct floodwalls, replace 2 bridges	*CIE	Private -0.36 acs. SCVWD - 3.92 acs. SC County - 0.54 acs. State of CA - 1.69 acs. City of San Jose - 0.60 acs.	
Mitigation	Fee	Private -0.01 acs. SCVWD - 3.49 acs. SC County - 0.64 acs. State of CA - 1.20 acs. City of San Jose - 0.05 acs.	
Flowage	*FE	Private - 0.80 acs. SCVWD - 1.22 acs. SC County - 0.20 acs. State of CA - 2.21 acs. City of San Jose - 0.21 acs.	
		TOTAL ACREAGE -17.14 acs. TOTAL OWNERSHIPS - 28 (23 Private and 5 public)	TOTAL \$7,072,747
Reach 8: (UPRR) river crossing to Willow Glen Way) Construct floodwalls and replace bridge	CIE	Private - 2.66 acs. SCVWD - 1.89 acs.	
Mitigation:	Fee	Private - 0.65 acs.	
Flowage	*FEE	Private - 0.39 acs.	
		TOTAL ACREAGE- 5.59 acs. TOTAL OWNERSHIPS - 21 (20 private and 1 public).	TOTAL \$2,932,279

Reach 9: (Willow Glen Way to Curtner Avenue) No flood control structures. Mitigation Flowage	CIE Fee *FE	0 acs. 0 acs. Private - 3.72acs. SCVWD - 1.55 TOTAL ACREAGE - 5.27 acs. TOTAL OWNERSHIPS - 65 (64 private and 1 public)	TOTAL \$4,731,234
Reach 10A: (Curtner Avenue to Capitol Expressway) Channel widening Mitigation Flowage	CIE Fee FE	Private - 1.07 acs. SC County - 0.34 acs. Private - 0.22 acs. SCVWD - 0.16 SC County - 0.1 Private - 0.82 acs. SCVWD - 0.37 acs City of San Jose - 0.41 acs. TOTAL ACREAGE - 3.49 acs. TOTAL OWNERSHIPS - 19 (16 private and 3 public)	TOTAL \$596,282
Reach 10B: (Curtner Avenue to Capitol Expressway) No flood control structures. Mitigation Flowage	CIE Fee FE	0 acs. Private - 0.03 acs. SCVWD - 2.35 acs. City of San Jose - 0.04 acs. Private - 0.39 SCVWD - 5.38 acs. City of San Jose - 0.35 acs TOTAL ACREAGE - 8.54 acs. TOTAL OWNERSHIPS - 3 (1 PRIVATE AND 2 public)	TOTAL \$1,013,119

Reach 10C: (Curtner Avenue to capitol Expressway) Widen channel and replace bridge. Mitigation Flowage	CIE Fee FE	Private - 1.55 acs. SCVWD - 1.05 acs. City of San Jose - 0.04 acs. Private - 0.39 acs. SCVWD - 1.00 acs. City of San Jose - 0.02 acs. Private - 0.80 acs. SCVWD - 1.68 acs. City of San Jose - 0.05 acs. TOTAL ACREAGE - 6.58 acs. TOTAL OWNERSHIPS - 5 (3 private and 2 public).	TOTAL \$4,577,316
Reach 11: (Capitol Expressway to Branham Lane) Widen channel. Mitigation Flowage	CIE Fee FE	Private -0.22 acs. SCVWD - 2.00 acs. SJ Water Co. - 0.67 acs. Private - 0.51 acs. SCVWD - 0.70 acs. SC County - 1.62 acs. SJ Water Co. - 0.28 acs. Private - 1.93 acs. SCVWD - 1.14 acs. SC County - 4.52 acs. SJ Water Co. - 0.41 acs. City of San Jose - 0.39 acs. TOTAL ACREAGE - 14.39 acs. TOTAL OWNERSHIPS - 14 (10 private and 4 public)	TOTAL \$987,034
Reach 12: (Branham Lane to Blossom Hill Road) No flood control features. Mitigation Flowage	CIE Fee FE	0 acs. SCVWD - 0.42 acs. SCVWD - 2.84 acs. SJ Water Co. - 0.12 acs. TOTAL ACREAGES - 3.38 acs. TOTAL OWNERSHIPS - 2 (0 private AND 2 public)	TOTAL \$13,454

Canoas Creek: Construct floodwalls and add culverts	CIE	SC County – 0.09 acs.	
Construct floodwalls	CIE	SCVWD – 0.36 acs.	
Construct Floodwalls and add culvert	CIE	SC County – 0.05 acs.	
Construct floodwall	CIE	SCVWD – 0.13 acs.	
Construction areas	*TWAE	SCVWD – 2.95 acs.	TOTAL \$4,000.00
Ross Creek: Widen channel, new culverts	CIE	SCVWD – 6.15 acs.	
Construction Areas	TWAE	SCVWD – 7.33 acs.	TOTAL – 11,000.00

*CIE - Channel Improvement Easement

*FE - Flowage Easement

*TWAE - Temporary Work Area Easements

**Estimated Values in chart do not include contingencies, damages, and PL 91-646 Relocations. Those are included in the Baseline Cost Estimate.

LPP (Bypass Channel Plan)

The Bypass Channel Plan was formulated to provide approximately 100-year channel capacity to all the reaches. The bypass channel provides a means of conveying the excess flows above the existing channel capacity with the least amount of disruption to the existing river channel. This plan includes recreation features which have been incorporated into the design of the flood control features. Thus, no additional real estate is required for the recreation features. Each bypass channel is located immediately east of the existing channel. The largest bypass channel is located in Reaches 7 and 8 between Willow Street and Willow Glen Way. A low floodwall on the east side of the bypass is required for the channel upstream of Alma Street and downstream of the UPRR bridge. Reach 10 features consist of east bank widening where necessary and replacement of the Curtner and Hillsdale Avenue Bridges. Low floodwalls and a levee are also provided on the west bank from the Almaden Expressway southbound bridge to the Almaden expressway northbound bridge. Reach 11 features consist of channel widening and a bypass channel, where the preferred measure is a bypass channel. Low floodwalls are provided on the east bank in Reach 12. Improvements to Ross Creek would include increasing the bottom width of the channel to 35 feet and adding culverts at Almaden Expressway and Jarvis Avenue.

A total of 160.72 acres are required for this project providing 119.04 acres for channel improvement easements for bypass channels and floodwalls, 25.81 acres for mitigation, 5.59 acres for recreation, and 10.28 acres for temporary work area easements. Some of the required lands are owned by the sponsor, the SCVWD, and some are owned by other public agencies.

The same easements as discussed in the NED Plan description apply in this plan.. The tables on the following pages detail the real estate requirements, ownerships, and values for this plan:

PROJECT FEATURE	ESTATE	ACREAGE/OWNERSHIPS	**EST. VALUE
Reach 7: (Southern Pacific RR river crossing to Union Pacific RR (UPRR) river crossing) Construct bypass channels and floodwalls	*CIE	Private -1.57 acs. SCVWD – 0.70 acs. SC County - 0.23 acs. State of CA - 2.79 acs.	
Mitigation	Fee	Private -1.20 acs. SCVWD – 0.43 acs. SC County - 0.75 acs. State of CA - 2.60 acs.	
Recreation	Fee	Private - 0.09 acs. SCVWD – 0.09 acs. SC County - 0.06 acs. State of CA - 0.51 acs. Unknown (no parcel no.) - 0.03 acs. TOTAL ACREAGE -11.05 acs. TOTAL OWNERSHIPS - 30 (23 Private and 7 public)	TOTAL \$3,913,520
Reach 8: (UPRR) river crossing to Willow Glen Way) Channel widening and construct bypass channel	CIE	Private - 4.23 acs. SCVWD – 3.62 acs.	
Mitigation:	Fee	Private - 0.10 acs. SCVWD – 0.22 acs. City of SJ – 0.06	
Recreation	Fee	Private - 0.31 acs. SCVWD – 0.38 acs. TOTAL ACREAGE- .8.92 acs. TOTAL OWNERSHIPS - 40 (31 private and 9 public).	TOTAL \$4,812,370

Reach 9: (Willow Glen Way to Curtner Avenue) Channel widening and construct bypass channel Mitigation Recreation	CIE Fee Fee	Private - 7.62 acs. SCVWD - 3.06 acs. SJ Water Co. - 1.22 acs. Private -1.03 acs. SCVWD - 0.72 acs Santa Clara County - 0.22 acs. San Jose Water Co. - 0.15 0 acs.. TOTAL ACREAGE - 14.02 acs. TOTAL OWNERSHIPS - 81 (74 private and 7 public)	TOTAL \$7,955,731
Reach 10A: (Curtner Avenue to Capitol Expressway) Channel widening Mitigation Recreation	CIE Fee Fee	Private - 2.77 acs. SCVWD - 0.47 acs. SC County - 0.49 acs. Private - 0.22 acs. Private - 0.02 acs. SCVWD - 0.06 acs Unknown.-(no APN no) . - 0.02 acs. TOTAL ACREAGE - 4.05 acs. TOTAL OWNERSHIPS - 23 (19 private and 4 public)	TOTAL \$1,170,875
Reach 10B: (Curtner Avenue to Capitol Expressway) Construct levees and floodwalls Mitigation Recreation	Flood Protection Levee Easement Fee Fee	Private - 1.94 acs. SCVWD - 10.37 acs. Private - 0.46 acs. SCVWD - 2.24 acs. SCVWD - 0.93 acs. TOTAL ACREAGE - 15.94 acs. TOTAL OWNERSHIPS - 10 (1 PRIVATE AND 9 public)	TOTAL \$2,180,092

Reach 10C: (Curtner Avenue to capitol Expressway) Widen channel	CIE	Private - 4.19 acs. SCVWD - 5.99 acs.	
Mitigation	Fee	Private - 1.67 acs. SCVWD - 1.12 acs.	
Recreation	Fee	Private - 0.54 acs. SCVWD - 0.10 acs. Unknown (-No. APN no.) - 0.04 acs.	
		TOTAL ACREAGE - 13.65 acs. TOTAL OWNERSHIPS - 2 (11 private and 10 public).	TOTAL \$6,898,880
Reach 11: (Capitol Expressway to Branham Lane) Widen channel, construct bypass channel	CIE	Private -5.54 acs. SCVWD - 5.62 acs. SC County -6.14 acs. SJ Water Co. - 1.86 acs.	
Mitigation	Fee	Private - 0.44 acs. SCVWD - 1.44 acs. SC County - 2.15 acs. SJ Water Co. - 0.20 acs.	
Recreation	Fee	Private - 0.36 acs. SCVWD - 0.73 acs. SJ Water Co. - 0.03 acs.	
		TOTAL ACREAGE - 24.51 acs. TOTAL OWNERSHIPS - 38 (19 private and 19 public)	TOTAL \$2,184,197

Reach 12: (Branham Lane to Blossom Hill Road) Channel widening	CIE	Private - 5.94 acs. SCVWD - 45.99 acs. SJ Water Co. - 0.62 acs.	
Mitigation	Fee	Private - 3.00 acs. SCVWD - 3.97 acs. San Jose Water Co. - .13 acs.	
Recreation	Fee	Private - 0.02 acs. SCVWD - 1.11 acs. SJ Water Co. - 0.16 acs.	
		TOTAL ACREAGES – 60.94 acs. TOTAL OWNERSHIPS - 31 (8 private AND 23 public)	TOTAL \$7,271,455
Reach 13: Mitigation	Fee	SCVWD - 1.29 acs. TOTAL ACREAGE - 1.29 TOTAL OWNERSHIPS - 1	TOTAL \$561,920
Canoas Creek: Construct floodwalls and add culverts	CIE	SC County – 0.09 acs.	
Construct floodwalls	CIE	SCVWD – 0.36 acs.	
Construct Floodwalls and add culvert	CIE	SC County – 0.05 acs.	
Construct floodwall	CIE	SCVWD – 0.13 acs.	
Construction areas	*TWAE	SCVWD – 2.95 acs.	TOTAL \$4,000.00
Ross Creek: Widen channel, new culverts	CIE	SCVWD – 6.15 acs.	
Construction Areas	TWAE	SCVWD – 7.33 acs.	TOTAL – 11,000.00

*CIE - Channel Improvement Easement

*TWAE - Temporary Work Area Easement

**Estimated Values in chart do not include contingencies, damages, and PL 91-646 Relocations. Those are included in the Baseline Cost Estimate.

ESTATES

The non-Federal sponsor will acquire the minimum interest in real estate to support the construction, operation, and maintenance of the project. The estates for both the NED and LPP plans are as follows:

(NED) - The minimum estates for the NED Plan are channel improvement easements, temporary work area easements for the construction areas, staging areas and temporary access roads, fee for mitigation lands, and flowage easements. There is also a requirement for mitigation lands to be provided in conjunction with the flood control aspect of the project. Lands that would satisfy the mitigation requirement are located within the project boundaries required for flood control. All lands that provide for multiple purposes, such as channel improvement work and mitigation, shall require the fee estate. Lands for the channel improvement work were valued at fee value. Those lands that are required only for flood control will require the channel improvement easement estate.

(LPP) - The minimum estates for the LPP are channel improvement easements, temporary work area easements for the construction areas, staging areas and temporary access roads, and fee for mitigation lands. There is a requirement for mitigation lands to be provided in conjunction with the flood control aspect of the project. Lands that would satisfy the mitigation requirement are located within the project boundaries required for flood control. In addition, there will be a recreation trail on roads that are also within the project boundaries. All lands that provide for multiple purposes, such as channel improvement work, mitigation, and recreation shall require the fee estate. Lands for the channel improvement work were valued at fee value. Those lands that are required only for flood control will require the channel improvement easement estate.

BASELINE COST ESTIMATE (NED AND LPP)

The Appraisal Branch of the Sacramento District Real Estate Division prepared the gross appraisals for the Feasibility Report at October 1, 1997 price levels. The gross appraisal for the LPP was approved by HQ USACE CERE-A on 22 March 1997. A gross appraisal for the NED was prepared and approved on 23 February 1998. The non-Federal sponsor prepared their estimate of acquisition costs and schedules based on their knowledge of project requirements and anticipated staffing and resource levels. All lands have been estimated at fair market value. The differences between State and Federal appraisal rules have been considered. There is no difference between the application of State and Federal rules in the valuation of the lands to be acquired.

NED Baseline Cost Estimate

Project	Non-Federal	Federal	*Land (LERRDS)	Project Cost
Upper Guadalupe (NED)	\$3,028,084	\$378,133	\$27,259,306	\$30,700,000
Project Total	\$3,028,084	\$378,133	\$27,259,306	\$30,700,000

*Includes Lands, Damages, and Contingencies but does not include damages and contingencies for publicly owned lands. Public Law 91-646 Relocations, estimated at \$898,000, are included in the LERRDs costs.

LPP Baseline Cost Estimate

Project	Non-Federal	Federal	*Land (LERRDS)	Project Cost
Upper Guadalupe (LPP)	\$3,575,300	\$457,300	\$46,000,000	\$50,032,600
Project Total	\$3,575,300	\$457,300	\$46,000,000	\$50,032,600

*Includes Lands, Damages, and Contingencies but does not include damages and contingencies for publicly owned lands. Public Law 91-646 Relocations, estimated at \$898,000, are included in the LERRDS costs.

THE NON-FEDERAL SPONSOR'S ABILITY TO ACQUIRE

The non-Federal sponsor has a real estate staff and experience in acquiring real estate for County, State, and Federal projects. They have not previously received credit for lands described in this report and required for this project. The sponsor owns about 40 or 50 residential properties within the project boundaries that they have been purchasing since 1984. Standard crediting procedures are expected to be applied to these acquisitions. There are no known special crediting issues for any of the land for this project. The sponsor has been advised of the risks of acquiring property prior to the execution of the PCA.

The sponsor has condemnation authority. Chapter 1405 of the Statutes of 1951: Santa Clara Valley Water District Act (As Amended) declares that "...The district may exercise the right of eminent domain, either within or without said district, to take any property necessary to carry out

any of the objects or purposes of this act. ...". An Assessment of Non-Federal Sponsor's Real Estate Acquisition Capability is being forwarded with the Draft Feasibility Report which discusses the sponsor's ability to acquire in more detail.

PUBLIC LAW (91-646) UNIFORM RELOCATIONS ASSISTANCE AND REAL PROPERTY ACQUISITION POLICIES ACT OF 1970 as amended by PUBLIC LAW 100-17

There are approximately 9 owner-occupant residences, 4 renter occupants, and 16 businesses that will require relocation. This applies to both the NED and the LPP. The sponsor has prepared a Relocation Plan. The sponsor is aware of and has experience with PL 91-646 requirements. The total cost for these relocations has been estimated at \$898,000 and is included in the baseline cost estimate. This cost provides for \$50,000 per owner-occupied residence, \$12,000 per tenant, and \$25,000 per business. These costs include payment of Last Resort Housing Benefits. Justification for Last Resort Housing Benefits will be provided as required by 24 C.F.R., 24.404 (1992) on a case by case basis.

FACILITY AND UTILITY RELOCATIONS

There are numerous utility and facility relocations in this project for both the NED Plan and LPP. They consist of bridge removals and replacements, relocation/modifications of sanitary sewer, water lines, stormwater outfalls, relocation of booster pumps and two wells, two temporary railroad relocations, and two road replacements for culvert construction. These "relocations" have been researched and are considered at this time to be compensable since the facilities and utilities are there by an interest in real estate and there is an ongoing requirement for them. Following is information on the relocations:

Bridges - There are five bridges that will be affected by the project. They are the Willow Street Bridge in Reach 7A, Alma Avenue Bridge in Reach 7B, Willow Glen Bridge in Reach 8, Curtner Avenue Bridge in Reach 10A, and Hillsdale Avenue Bridge in Reaches 10 C&D. (NOTE: Curtner Bridge is only to be relocated in the LPP and not required to be relocated for the NED Plan.) The work to be done on the bridges mainly consists of removing and replacing them at a higher elevation to accommodate the project design. The bridge replacement would require the same road width with no parking. Any betterment would be cost-shared between the sponsor and the City of San Jose.

Malone Street Bridge – The Malone Street Bridge discussed in the main report, located in Reach 9, is not a relocation. The work in relation to the Malone Street Bridge involves a retaining wall which will serve to protect an access road that will be constructed as a project feature. Based on this, the Malone Street Bridge work is considered to be a construction cost. (NOTE: The Malone Street Bridge work is not required in the NED Plan.)

Hillsdale Avenue Bridge – The Hillsdale Avenue Bridge is considered to be a “relocation” as defined in WRDA, although there is a change in the location of the bridge. An Attorney’s Opinion of Compensability (AOC) has been prepared that confirms that there is an ongoing necessity of this bridge notwithstanding the change in the location. The new location of the bridge is approximately 2,200 feet downstream of its current location. The bridge is being relocated for efficiency of traffic load management. The bridge will serve the same people it serves in its present location. The AOC is presently being forwarded to HQUSACE.

Utility Relocations (Water and Sewer Lines, Stormwater Outfalls, Booster Pumps, and Wells) - These utilities and facilities will be re-routed and/or raised or lowered to accommodate the new bypass channel and design. Any betterment would be cost shared between the sponsor and the City of San Jose and/or San Jose Water Company.

Road Replacements - These roads are currently used, will continue to be used, and are owned by the Santa Clara County Transportation District. These modifications consist of in-kind road replacements. There will be detours or rerouting. The costs associated with the traffic delays have been computed and included in the cost analysis as represented in the Economics Appendix to the main report. There are no real estate impacts such as requirements for additional lands.

“ANY CONCLUSION OR CATEGORIZATION CONTAINED IN THIS REPORT THAT AN ITEM IS A UTILITY OR FACILITY RELOCATION TO BE PERFORMED BY THE NON-FEDERAL SPONSOR AS PART OF ITS LERRD RESPONSIBILITIES IS PRELIMINARY ONLY. THE GOVERNMENT WILL MAKE A FINAL DETERMINATION OF THE RELOCATIONS NECESSARY FOR THE CONSTRUCTION, OPERATION, OR MAINTENANCE OF THE PROJECT AFTER FURTHER ANALYSIS AND COMPLETION OF FINAL ATTORNEY’S OPINIONS OF COMPENSABILITY FOR EACH OF THE IMPACTED UTILITIES AND FACILITIES.”

RECREATION (LPP ONLY)

The recreation feature proposed for this project is a multi-use recreation trail linking the study area with the existing trails along the Guadalupe River in downtown San Jose and upstream of Blossom Hill Road. There will not be a separate PCA for the recreation aspects of this project, and the SCVWD will be the sponsor for the recreation in this project as well as the flood control project. The design of the recreation trail has been coordinated with the City of San Jose, and brief stretches of the trail will be located off-site but will be the sole responsibility of the City of San Jose. The land required for recreation will be constructed on project lands that are required for flood control purposes. The recreation feature in this project is a recreation trail that will be located on the surface of gravel-based maintenance access roads which are required for the

proposed project. The trail will follow the maintenance road and portions of the bypass channels and levees within the project area. In order to provide a continuous pathway, portions of the trail will leave the project lands and will be provided off-site on city streets by the City of San Jose. These off-site areas will be provided by the City of San Jose in coordination with the non-Federal sponsor and at no cost to the project. The off-site areas will provide continuity to the recreation features in the project. Additional recreation features, such as picnic areas and bathrooms, will be included in the overall recreation plan. These additional features will be located in Reaches 7, 10b, 11, and 12 and require only minimal areas. They will be located off the maintenance access roads and on lands that have appraised for a channel improvement easement and for which the gross appraisal determined fee value. As stated in the Estate Section of this report, lands that provide for multiple purposes such as in this case where recreation and a maintenance road are required, the fee estate will be required.

The recreation areas are located in the following reaches:

REACH	ACREAGE	OWNER	*VALUE
7	0.09 acres	Private	"0"
	0.09 "	SCVWD	"0"
	0.06 "	SC County	
	0.51 "	State of CA	
	0.03 "	Unknown	
8	0.31 "	Private	"0"
	0.38 "	SCVWD	"0"
10A	0.02 "	Private	"0"
	0.06 "	SCVWD	"0"
	0.02 "	No APN	"0"
10B	0.93 "	SCVWD	"0"
10C	0.54 "	Private	"0"
	0.10 "	SCVWD	"0"
	0.04 "	No APN No.	"0"
11	0.36 "	Private	"0"
	0.73 "	SCVWD	"0"
	0.03 "	SJ Water Co.	"0"
12	0.02 "	Private	"0"
	1.11 "	SCVWD	"0"
	0.16 "	SJ Water Co.	"0"

*There is no land value attributed to the recreation features in his project. This is because the recreation features are included in the proposed flood control project for flood control purposes. The channel improvement easements for these flood control areas were valued at full fee value, and there is no residual value for recreation.

MITIGATION

LPP - There is a total of 27.52 acres of mitigation lands of which 22.174 acres for riparian forest, 3.604 acres for urban forest, and 2.578 acres for wetland. These lands are within the channel, with the exception of 2.234 acres of urban forest that are outside the channel but still within the 160.72 acres described in this report.

NED - There is a total of 12.1 acres of riparian forest mitigation lands for the NED Plan. These lands are mostly within the channel.

ATTITUDE OF LANDOWNERS

The landowners in the project area are generally in favor of the project. There are no anticipated major or specific issues regarding acquisition of property with the landowners outside of normal negotiations for property acquisition.

MINERALS

There are no valuable minerals impacted by this project and thus no subsurface minerals or timber activity, and therefore no enhancement for mineral deposits is included in the baseline cost estimate.

HAZARDOUS, TOXIC, AND RADIOLOGICAL WASTE (HTRW)

A project area review and preliminary assessment (PSA) of the study areas was conducted in 1992. There were eight sites noted as potential HTRW sites, which contain mercury, nickel and silver, petroleum hydrocarbons, and pesticides. The potential causes are businesses such as automotive repair, etc. The sponsor will be responsible for cleanup of lands, and such cleanup will be done prior to construction. This issue is described in more detail in the main report. The appraiser was not knowledgeable of the nature and extent of the contamination nor the cost of the removal and clean up. Therefore, the sites valued were treated as if no contamination or toxic concerns exist with the assumption that any negotiations for acquisition will consider the cost of treating the toxic contaminants.

ACQUISITION SCHEDULE

The Acquisition Schedule is included as Exhibit A.

EXHIBIT A

Real Estate Milestones Project Name				
	COE Start	COE Finish	NFS Start	NFS Finish
Receipt of Final Drawings from Engineering/Project Manager		3/00		
Execution of PCA		3/00		3/00
Formal Transmittal of Final ROW Drawings and Instruction to Acquire LERRD		4/00		
Conduct Landowner Meetings			4/00	4/00
Prepare/Review Mapping and Legal Descriptions			4/00	5/00
Obtain/Review Title Evidence			4/00	5/00
Obtain/Review Tract Appraisals			5/00	7/00
Conduct Negotiations			7/00	11/01
Perform Closings			8/00	11/01
Prepare/Review Condemnations			06/01	11/01
Perform Condemnations			07/01	11/01
Obtain Possession			09/01	11/01
Complete/Review PL 91-646 Benefit Assistance			09/01	11/01
Conduct/Review Facility and Utility Relocations			09/01	11/01
Certify All Necessary LERRD for Construction	11/01	12/01		
Prepare and Submit Credit Requests			12/01	3/02
Review and Approve or Deny Credit Requests	12/01	5/02		
Establish Value for Creditable LERRD in F&A Cost Accounting System	05/02	06/02		

COE Engineers

NFS - Non-Federal Sponsor

**ASSESSMENT OF NON-FEDERAL SPONSOR'S
REAL ESTATE ACQUISITION CAPABILITIES**

UPPER GUADALUPE RIVER FLOOD PROTECTION STUDY

I. Legal Authority:

- a. Does the sponsor have legal authority to acquire and hold title to real property for project purposes? **YES**
- b. Does the sponsor have the power of eminent domain for this project? **YES**
- c. Does the sponsor have "quick-take" authority for this project? **YES**
- d. Are any of the lands/interests in land required for the project located outside the sponsor's political boundary? **NO**
- e. Are any of the lands/interests in land required for the project owned by an entity whose property the sponsor cannot condemn? **NO**

II. Human Resource Requirements

- a. Will the sponsor's in-house staff require training to become familiar with the real estate requirements of Federal projects including PL 91-646, as amended? **N/A**
- b. If the answer to II.a. is "yes", has a reasonable plan been developed to provide such training? **N/A**
- c. Does the sponsor's in-house staff have sufficient real estate acquisition experience to meet its responsibilities for the project? **NO**
- d. Is the sponsor's projected in-house staffing level sufficient considering its other workload, if any, and the project schedule? **N/A**
- e. Can the sponsor obtain contractor support, if required, in a timely fashion? **YES**
- f. Will the sponsor likely request USACE assistance in acquiring real estate? **NO**

III. Other Project Variables:

- a. Will the sponsor's staff be located within reasonable proximity to the project site? **N/A**
- b. Has the sponsor approved the project/real estate schedule/milestones? **YES**

IV. Overall Assessment:

- a. Has the sponsor performed satisfactorily on other USACE projects? **YES**
- b. With regard to this project, the sponsor is anticipated to be **CAPABLE**.

V. Coordination:

- a. Has this assessment been coordinated with the sponsor? **YES**
- b. Does the sponsor concur with this assessment? **YES**

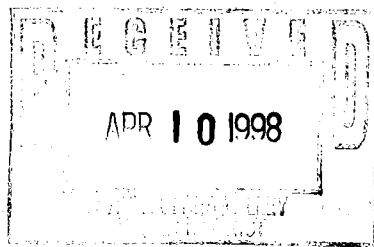
Prepared by:

SUSAN MILLER
Real Estate Manager

Reviewed and approved by:

MARVIN D. FISHER
Chief, Real Estate Division

DATE _____



APR 10 1998

OFFICE OF THE ATTORNEY GENERAL